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EDITED BY

GRANVILLE SHARP PATTISON, M.D.

PROF. OF ANAT. IN JEFF. MED. COL., PHILA.,

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BY GRANVILLE SHARP PATTISON, M.D.,

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ON THE ANTI-PTYALISMAL VIRTUES OF IODINE.

By Dr. Lucius O'Brien, Assistant Surgeon, U. S. Army, Fort Towson, S. W. Frontier.

The summer and autumn of 1834 were prolific in the production of the higher grades of bilious diseases along the whole line of our south-western frontier, and the obstinacy with which they resisted the ordinary modes of treatment, will ever be remembered by the citizens and soldiers of this vicinity, who, to a man, were prostrated by some one of its protean forms.

Being the only medical officer for duty here, and our garrison participating in the common calamity to an extent scarcely credible, I had abundant opportunities of observing the inconveniences and dangers of protracted ptyalism. Mercury, in every proportion, from the cautious, "slow, and moderate" purging of Miner and Tully, of New England, to the macadamizing doses of Professor Potter, was called for by the diseases referred to. Operating on such diversified shades of constitution as the rank and file of an army afford, profuse and incontrolable salivation was, of necessity, a frequent consequence.

Every medical man is aware of the perplexing nature of profuse ptyalism, and of the inertness of most of our resources, even where a copious collection of drugs and medicines are at hand. Stationed at one of the remotest out-posts, with an exhausted dispensary, and with a hospital crowded with mercurialized patients, my attention was necessarily alive to any suggestion of the means by which relief could be attained. In the "Medico-Chirurgical Review," for January, 1834, I met with the following proscription of the famous professor Hufeland:-

℞ Iodini gr. v. solve in
Spir. vini ʒij.
Aqua cinn. ʒij. ss.
Syrupi ʒ ss. M.

Half a table spoonful to be taken every six hours; the dose to be gradually increased.

In severe cases, "the severe smarting, the tumefaction of the glands about the mouth, and the profuse flow of spittle, ceased after three or four days' use of it, and the mercurial sores healed up" with great rapidity. In every case, a manifest amelioration of all the symptoms resulted from its exhibition.

In some of my cases very great difficulty of deglutition rendered its use internally very objectionable. I directed my hospital steward to put up,

℞ Iodini gr. x.
Ung. simp. ʒss. M.

Whenever the ointment was applied the "*royal touch*" seemed manifest. An abatement of all the symptoms, local and general, followed, and the patient was soon reported for duty.

I have not had an opportunity of testing the qualities attributed to *iodine* by Drs. Kluge, Graves, and Brereton,* but from the rapid convalescence of some of my mercurialized patients, in whom organic inflammation was palpable, I have reason to believe that its virtues are not solely anti-ptyalismal.

CREOSOTE.

We have translated from the Medical Gazette of Paris, the following account of *creosote*, an article recently introduced into the *materia medica*. So far as the reports of British journals have reached us, this article does not appear to have proved as successful in the hands of the English physicians as in those of the continent.

A new substance, discovered by M. Reichenbach, first in pyroligneous acid and afterwards in tar, and to which he gives the strange name of *creosote*, presented so remarkable an action on animal substances, and particularly on blood and albumen, that it soon attracted the attention of the most distinguished physicians of Germany. At the present time, experiments are being made with it in the clinical institutes of Berlin and Vienna, as well as in many other less celebrated hospitals. We shall take care to keep our readers advised of the results obtained, and to day shall present them with some important facts which already testify to the utility of this new therapeutic agent. We shall first borrow some details upon the physical and chemical properties of this substance, from a very good analyses of M. Reichenbach's memoirs, inserted by M. Vallet in the October number of the *Journal de Pharmacie*.

Creosote is an oily, colorless, transparent liquid, of great repungibility; its odor is penetrating, disagreeable, and similar to smoked meat; taste is hot and very caustic; consistence that of the oil of almonds. Its specific gravity is 1.037, under an atmospheric pressure of 0.722′ and 20° cent. It boils at 203° cent., and is not coagulated at 27° cent. It burns with a very fuliginous flame. It is neither acid nor alkaline, and forms with both acids and alkalines numerous compounds. It forms with water at 20° c. two compounds, one of which is a solution of one and one-fourth parts of creosote in 100 parts of water, the other is a solution of 10 parts of water in 100 of creosote.

But it is its action on organic substances that is most important. We have proven ourselves that if a drop of pure creosote be dropped on the white of an egg, in less than two minutes there forms on the surface, a dense, white, compact pelicle, which may be removed in one piece. Concentrated acetic acid, compared in this way with creosote, gives a soft coagulation without consistence; nitric acid forms a pelicle more rapidly, but is less dense and diffused than that that we obtained from the creosote. If instead of dropping it upon the pure white of the egg the latter be diffused in a considerable quantity of water, and a single drop of creosote be thrown into this mixture, it becomes immediately enveloped in small white particles of coagulated albumen.

Fresh meat put into a solution of creosote and withdrawn in half an hour or an hour and dried, may be exposed to the heat of the sun without any fears of putrefaction; it then hardens in about eight days, takes an agreeable odor of well smoked meat, and assumes a reddish brown color. Fish may be preserved in the same manner; but as pyroligneous acid and tar water produce the same effect, there is no doubt that creosote is the antiputrid conservating principle of the liquids, as well as of smoke.

Curious to know the mode of action of creosote in these cases, and presuming that the same action would take place on blood, M. Reichenbach put serum, the clot, the coloring matter, and the pure fibrin of that fluid successively in contact with creosote, and he has concluded from his experiments that it coagulates the albumen of the blood, that this coagulation takes place instantly when the two liquids are concentrated, more slowly when one or the other is diluted, and that fibrin properly freed from all the other principles is not attached by creosote It is well known that coagulated albumen does not putrify, nor does muscular fibre of itself

* See April No. Johnson's Med. & Chir. Review, p. 455.

appear susceptible of entering into putrefaction. It is in consequence of this conservative property that M. Reichenbach has given to this new substance the name of creosote (from two Greek words meaning, *I preserve flesh*).

The action of creosote upon the animal economy is very energetic. Placed on the tongue it produces violent pain; in its concentrated state, when applied to the skin it destroys the epidermis; insects and fish placed in a solution of it soon perish; plants die when irrigated with its solution. Is not this deleterious action due to the same property that renders creosote a preserver of flesh—that of coagulating albumen? If, instead of pure creosote we put in our mouth a diluted solution of this substance, there is an astringent sensation and taste of smoke produced, which in one of our experiments continued more than two hours.

On reflecting upon these results M. Reichenbach was induced to think that creosote was the active and medicinal principle of tar-water, pyroligneous acid, the animal oil of Dippel, and the empyreumatic liquid, more recently discovered, which is prepared by adding heated chalk to pyroligneous acid, and distilling over a little more than half the liquid. This empyreumatic fluid having produced, it was said, the most happy effects in the treatment of cancers and gangrene, it was rational to attempt a comparative trial of the solution of creosote, or of the creosote itself. It is also known, that the anti-hemorrhagic water of Binelli, so much extolled in Italy, and which in some cases has been unquestionably successful, having been analyzed by Berzelius, that celebrated chemist found in it a peculiar substance which he had never met with before. From this analysis, Professor Schweiger-Seidel thinks that substance is no other than creosote. And in fact, the empyreumatic odor of the aqua Binelli, its entire transparency, and its unalterability by air, gives great weight to this opinion. The effects also, are the same, or rather the effects which we anticipate from the action of both in hemorrhages, according to their comparative influence upon blood and albumen, show themselves much the most strongly in creosote.* Dr. E. Graefe having already applied some drops of pure creosote to a cut that bled abundantly, the hemorrhage was immediately arrested; the blood coagulated on the wound in a reddish brown color, and the cut healed by the second intention. It is probable that by using the solution of creosote the union might have been produced by the first intention, and the author himself regrets that it was not tried. We know some cases ourselves of the same nature, where the solution succeeded perfectly.

Pure creosote, or its solution, representing the active principle of all these remedies, as quinine does that of the Peruvian barks, but with an energy in direct proportion to its concentration, analogy indicates at once to experimenters to what affections creosote may be applied. These first results appear very satisfactory, even after allowing for the exaggerations which will be mingled with all new discoveries. Thus we cannot admit, with M. Reichenbach, that he has cured by its internal use a case of phthisis pulmonalis in its last stage. There are some of his assertions too difficult to prove, and which none but the inventor, seduced by the beauty of his discovery, could be induced to believe.† But it appears beyond dispute, that creosote has produced good effects in many cases of caries, cancers, and ulcers, of bad character. Thus it is announced that in the surgical clinic of Giessen, Drs. Ritgen and Trapp, have made some experiments in which the injection of the water of creosote into the fistulas from carious bones, have produced the best effects upon the caries. These facts are not yet published, but the following is an example of the utility of creosote in a case of cancer, signed by a name that

* This will contribute not a little to enforce the argument of M. Double against the purchase of secret remedies; namely, that it is almost impossible that their composition should resist the researches of an analysis. The secret of the composition of the aqua Binelli has been bought in London, by Godfroy and Cook, for the enormous sum of 75,000 francs (@15,000). If this opinion of Professor Schweiger-Seidel be correct, and there is every reason to believe it is, here is a capital well invested!

† In a very recent memoir M. Reichenbach abandons the internal use of creosote for chronic pulmonary affections. He proposes to plunge the patient into an atmosphere impregnated with this substance. To produce this, it is sufficient to suspend a sheet of paper imbued with creosote in the chamber of the patient, and to renew it as it becomes dried by evaporation. It cannot be denied that this is a very ingenious and simple method: it remains for experience to tell its results.

allows of no doubt; the author is M. E. Graefe, the brother of the celebrated professor of Berlin.

"*Obstinate carcinomatous ulcers of the ala of the nose and of the palate; application of the water of creosote, and of this substance pure. Rapid amelioration.*"*

"CASE. The patient on which I employed the creosote was a weaver, Ed. Wetzel, of Berlin, aged seventeen years, belonging to a healthy family, and offering himself no indication of any peculiar idiocracy. A year and a half ago he observed a pustule raise at the inferior extremity of the right wing of the nose, which continued to grow and which he at last scratched off. It then became an ulcer, which, continuing to spread, destroyed first almost the whole of the wing of the nose, and then a part of the point of the organ of the upper lip, discharging a black and fetid ichor. This was the condition in which the patient came to me.

"On examining the buccal cavity, I found the right side of the palate covered with ulcers of a pale red color, that yielded a very fetid pus of the same appearance. The patient had already consulted many physicians, and used a great number of remedies; he had even been in the hospital *de la Charite* of Berlin, without finding any relief.

"As M. Hellming, the apothecary, had been kind enough to give me some of the water of creosote, I resolved to try it on this subject. I passed a pencil dipped in this substance over the cancerous ulcers of the nose and palate, and introduced into the nasal fossa of the right side some lint soaked in the same; covered the whole by means of a dry pledget, and secured it by means of adhesive strips. The patient only complained of a slight smarting. The dressing was renewed every day in the same manner. The fourth day I observed that the ulcer of the nose was dry and covered with a reddish brown crust. I removed this crust, the ulcer bled a little, notwithstanding which I dressed it as usual. From that day crusts of the same nature continued to form, and I removed them as before.

"The eighth day the ulcer presented the following changes: it had not extended; relieved of the crust that covered it, it had no more of the fungous aspect that it first showed, whilst its surface seemed dried and mumified (momifee), and finally at the inferior edge of the nose, cicatrization had commenced. This cicatrix from the thirteenth day made a remarkable progress.

"Fifteen days after, M. Hellming having given me some pure creosote, I made use of it instead of the solution for the case. From it the patient felt a lively smarting pain, but which soon disappeared. The next day the crusts were much larger and a little more difficult to detach; it was the same again the next day. The ulcers of the palate began to look smooth, the suppuration diminished, the cicatrization of the lower part of the wing of the nose continued to extend, so that at this time, the 5th of July, after thirteen days employment of the pure medicine, the diseased wing of the nose, the anterior part of the nasal fossa of the same side and the affected part of the upper lip, are cicatrized; there is yet only a small spot on the wing of the nose and the palate that still suppurates, and I have hopes of seeing the entire disease cured in a short time."

We cannot complete these preliminary remarks better, than by inserting from the same journal, a letter from the discoverer, M. Reichenbach, to M. Hellming, apothecary of Berlin, at the time he sent him the creosote.

"I repeat that the creosote which I send you, is not, chemically speaking, absolutely pure; but it is sufficiently so for medical use. If in the course of time it takes a reddish tint, it is owing to the air, which however has no influence upon its therapeutic properties. This effect does not take place when the creosote is chemically and perfectly pure. This creosote then will not do to judge of its chemical properties, but only to prove its extraordinary medicinal ones.

"Physicians who make use of this remedy are desired not to employ it with too much timidity, and not to trust too long to its weakened solution when its effects are slow in showing themselves, but boldly have recourse to the creosote itself. It will it is true produce some pain for a few moments at first, but this is not followed by any accidents. In cancer when the

* Journal de Chirurgie, de MM. Graefe et Walther. vol. 20. p. 151.

lardaceous surface detaches itself, it is necessary to apply the creosote many times a day to the bleeding surface, without any regard to the pain. The cure runs on then with great rapidity.—*Gazette Medicale.*

LECTURE ON THE THEORY AND PRACTICE OF MEDICINE.—BY WILLIAM STOKES, M. D.,

Delivered at the Medical School, Park Street, Dublin.—Session 1833-34.

Recapitulation—Preservation of Function with Organic Disease—Application of the Laws of Development—Vicarious Action of Parts—Importance of Pathology to Phrenology—Diagnosis of Local Diseases of the Brain—Opinions of Bouillard, Serres, and Foville—Influence of the Optic Thalami and Corpus Striatum on the Motions of the Extremities—Researches of Andral—Diagnosis of Disease of the Cerebellum—Connection with the Generative System.

Gentlemen,—We were occupied at our last lecture in considering some of the phenomena of partial encephalitis, by which is generally meant, a localized inflammation of the deep-seated parts of the brain; because superficial inflammation of the cerebral substance is very rarely partial. I endeavored to show that the diagnosis of this local encephalitis was to be drawn, in a great measure, from the occurrence of pain and muscular affections of *one side of the body:* in other words, that the phenomena of this disease were partial, so as to give us at once a distinction between general and partial inflammation of the brain. In cases of general inflammation, we have convulsions of both sides, delirium, and coma; in the partial form these symptoms are absent until complication takes place. Thus the supervention of delirium, or of convulsions on both sides, in a case where previously the signs of only *partial* encephalitis existed, would point out, in all probability, an extension of disease to the opposite hemisphere. I also endeavored to point out the different modes in which partial encephalitis might be accompanied with symptoms of a general character, or affecting both sides; that there might be a co-existing inflammation of the membranes; or that the pressure of the diseased on the healthy hemisphere of the brain might be the cause of the complication. I stated, that some of the most remarkable cases of the most extensive destruction of the brain, without perceptible injury of the mental powers, were those in which a traumatic opening in the skull gave full scope to the swollen parts, and obviated the effects of pressure on the sound hemisphere. I also observed, that, in cases of local affections of the head, there are two causes which have a tendency to produce general symptoms. One of these is the cause which determines the pain and muscular affection of the opposite side; the other is the general determination of blood to the head; so that we may have cases in which the *actual inflammation* is limited to a part of one hemisphere, and yet, from the general determination of blood to the head, we may have coma and general symptoms.

To return again to the interesting consideration of great loss of cerebral substance with preservation of intellect, I have to remark, that this circumstance is one which some persons might quote against the opinion that the brain was the organ of intelligence; and I believe this fact has been laid hold of by the opponents of phrenology, and put forward as a powerful argument against the truth of its doctrines. Thus, for instance, in the case of Mr. O'Halloran's patient, who lost a large portion of one hemisphere, and yet, with all this mischief, the powers of the intellect remained unimpaired; it would not seem strange if a person should say, here is vast destruction of substance without any lesion of intelligence: how then can the brain be considered as the organ of thought? But let us look at this matter in its true point of view. In the first place, it is to be remembered that cases like this are rare,—that they are to be considered as the exception and not as the rule. I have already shown you that it is a law in pathology that lesion of structure and lesion of function are not always commensurate. This law applies to the brain as well as to all the other organs. To say that the brain was not the organ of intelligence, because in cases of extensive cerebral disease that intelligence was preserved, is false reasoning. A man will digest with a cancerous stomach;—is it to be argued from this, that the stomach is not the organ of digestion? I have seen the liver completely burrowed by abscesses, yet the gall-bladder was full of healthy bile. I have seen one lung com-

pletely obliterated, and yet the respirations only sixteen in the minute, and the face without lividity. What do these facts prove? Not that the health of organs is of no consequence, but that with great disease there may be little injury of function.

By reference to the original laws of organization, we may (in some cases at least) arrive at an explanation of this fact. You know that organs are primitively double; and we find, that though the fusion at the median line is produced by development, yet that the symmetrical halves still, to a certain degree, preserve their individuality. Thus we see how the laws of organization affect the phenomena of disease, and recognize a provision, acting from the first moment of existence, against the accidents of far distant disease.

Now, admitting that the brain is the organ of thought, we may suppose that, as in case of partial obstruction of the lung from inflammation, the remainder of the organ takes on an increased action, so as to supply the place of that which has been injured or destroyed. We know, that if one lung be hepatized, the other takes on its functions and carries on the process of respiration for a time. That this is the case, is shown, first by life being continued, and secondly, by the stethoscope, which informs us that the respiration of the lung, which has a double duty thrown upon it, is remarkably intense, proving the force of its action; and it has been further established, that the lung which thus takes on a supplemental action may become enlarged and hypertrophied. May not this also occur in the brain? There is no reason why such a pathological phenomenon, occurring in one viscus, may not also take place in another. But the opponents of phrenology say, supposing the organ of causation to be destroyed, how can the person continue to reason? It strikes me that the only way in which we can account for this is, by supposing that other parts of the brain take on the functions of those which have been injured or destroyed. Nor is there any thing extraordinary or anomalous in such a supposition. We see almost every day, examples of this kind. We see that in certain diseased states of the liver, accompanied by suppression of its secretion, its functions are assumed by other parts, and bile continues to be separated from the blood by the kidneys, salivary glands, and by the cutaneous exhalants. Here is a remarkable case, in which the glands and other parts take on the performance of a function totally different from that in which they are ordinarily employed. We find, also, that when the urinary organs are obstructed, urine, or its principles are discovered in parts of the system where we should not at all expect them. Thus we have a very remarkable case detailed in the American Journal of the Medical Sciences, in which we find that a young female, who labored under paralysis of the urinary organs, discharged urea from almost every part of the body, even from the ears. Neither is there any thing very extraordinary in this. In several instances of suppression of the menstrual discharge, do we not see a vicarious secretion taking place from the surfaces of parts the most distant, and unconnected with the uterine system? It is a well-established law, that when the functions of organs are suspended or destroyed, other parts will often take on the action of the injured viscus. Now, supposing that a portion of the brain is to be looked upon as the organ of causation, and such portion is injured or destroyed, there is no reason why the remaining sound portion of brain should not take on, at least to a certain extent, in addition to its own, the functions of that part which has been injured. If, independently of any phrenological views, we admit the brain to be the organ of thought, there is no reason why we should not admit that the loss of intellectual power produced by lesion of one part may not be supplied by an increase of activity in the remaining portions. It is only by a supposition of this kind that we can account for the preservation of the integrity of mind in many cases of disease of the brain. If we admit the phrenological doctrines, we can suppose that when one organ is injured, another may take on an additional function, and in this way preserve the integrity of the intellect; so that, whether we reason from phrenology or not, the continuance of soundness of mind, in cases of injury of the brain, can be understood when you come to contrast it with other analogous pathological facts. I again repeat, that it is not more extraordinary that, in case of local injury of the brain, the sound parts should take on a supplemental action, than that bile should be eliminated by the salivary glands, skins and kidneys, or that the principles of urine should

be discharged from almost every part of the system, or that a vicarious discharge from the roots of the hair should supply the place of the uterine secretion.

On this subject one point should be always borne in mind, viz., that we may be wrong in saying that a patient is *quite sane* while he is still an invalid and in bed. Unless we can show that after his recovery, and in his various intercourse with the world, he preserves his original intelligence, it would be wrong to assert that there has been absolutely no lesion of intellect consequent on the affection of the brain. While lying at ease in bed, and unaffected by any moral stimuli, he may seem to possess a sound condition of mind, he may put out his tongue or stretch forth his hand when requested; he may give an accurate account of his symptoms, and answer all the ordinary medical interrogatories with precision. But you are not from this to conclude that he is perfectly sane. Many persons under such circumstances have died in bed, and appeared to preserve their intellect to the last, but in such cases the test of sanity, *intercourse with the world*, could not be fairly applied, and hence I think that there are not sufficient grounds to pronounce a decided opinion as to the real condition of the intellect in such cases.

Before I quit this part of the subject, I wish to make a few remarks on the doctrines of phrenology. There can be no doubt that the principles of phrenology are founded on truth, and of course highly deserving of your attention, as likely at some future period, when properly cultivated, to exercise a great influence over medical practice. The great error of the phrenologists of the present day consists in throwing overboard the results of pathological anatomy. If a pathological fact is brought forward, as appearing to bear against the validity of their opinions, they immediately exclaim, "we dont recognize any fact or principle drawn from disease: our science has to do with the healthy, and not the morbid condition of the brain." Now, this is altogether absurd. Phrenology, if true, is nothing but the physiology of the brain, and pathology is nothing but the physiology of disease. Phrenology must be tested by disease as well as by health, and if it does not stand the test of pathology it is wrong. If phrenology be a science founded on truth, if it is a true physiology of the brain, or of that portion of it connected with mental phenomena, one of two results should obtain,—either that it should be confirmed by pathology, or that the difficulties which pathology presents, should be explicable in a manner consistent with the science. The phrenologists, in my mind, are doing a direct injury to the cause of their science, by their unnecessary and ill-timed hostility to pathology. It is idle to say, as they do, that theirs is the science of health, and that it is unfair to apply to it the test of disease. From pathology is drawn a host of facts, from which the doctrines they profess derive their principal support. The mere phrenologist, who understands not and despises pathology, is nothing better than a charlatan, and professes a science which he does not comprehend. If he would recollect that the brain in a state of health is most, and in a state of disease least, adapted to the purposes of thought, he would see that this is one of the strongest arguments in favor of his doctrine that the brain is the organ of mind. The more healthy it is, the fitter is it to discharge the functions of intellect, and *vice versa*, yet phrenologists are so absurd as to think that pathology has nothing to do with their science.

But besides confirming the doctrine that the brain is the organ of thought, there are innumerable facts drawn from pathology, which have a tendency to prove that particular parts of the brain are the organs of peculiar phenomena. We see an injury of one part of the brain, accompanied by a train of symptoms indicating some peculiar lesion of mind; we see an affection of another part attended by a different class of phenomena. Here pathology, the science which phrenologists reject and despise, goes to establish the ground work of their doctrines, that the brain consists of a congeries of parts, having each a separate and distinct function. We find, for instance, that disease of one portion of the brain affects the intellect, of another, the generative organs, of a third, the muscular system. What does this prove but that the brain is not a simple organ, but composed of a congeries of parts, each of which governs a different part of the system or ministers to a peculiar purpose. Now, what is this but what the phrenologists themselves wish to prove?

Further, the professors of phrenology have placed all their organs on the surface of the brain,

and for this they have been loudly censured. Phrenology, it is urged, knows, or professes to know, nothing about the central parts of the brain, which must be equally important with the superficial, and have confined their investigations to the surface alone. Now it is a curious fact, that the pathology, which they deny, in this instance furnishes the best reply to this objection. I mentioned at my last lecture, that if we examine the symptom of delirium, we find that it characterizes the inflammation of the periphery, and is commonly wanting in that of the deep-seated portions. In other words, mental alienation is the characteristic of the disease of that portion of the brain, where the phrenologists have placed the intellectual organs. Here is a strong fact in favor of the doctrines of phrenology, derived from that science, which the mere phrenologist throws overboard and despises. Again, according to the researches of some celebrated French pathologist, there are a number of facts to show that there is a remarkable difference between the symptoms of arachnitis of the convexity and of the base of the brain. This conclusion, which after a most careful series of investigations was adopted by them, is borne out by the results of my experience, and appears to me to be established on the basis of truth. They have discovered that arachnitis of the convexity of the brain is a disease characterized by prominent and violent symptoms, early and marked delirium, intense pain, watchfulness, and irritability. We have first delirium, pain, and sleeplessness, and then coma. But in arachnitis of the base of the brain, the symptoms are of a more latent and insidious character; there is some pain, and the coma is profound, but there is often no delirium. What an important fact for the supporters of phrenology is this, and how strikingly does it prove their absurdity in rejecting the lights derived from pathology! Here we find the remarkable fact, that inflammation of the arachnoid, investing the base of the brain to which phrenologists attach comparatively no importance, is commonly unattended with any lesion of the intellectual powers, while the same inflammation on the convexity is almost constantly accompanied by symptoms of distinct mental alienation.

It is objected to the phrenologists that they know little or nothing of the central parts of the brain, that though these parts may be fairly considered to be of as much importance as any others, still they do not admit them to be organs of intellect. Now, what does pathology teach on this subject? It shows that we may have most extensive local disease of the central parts of the brain, that we may have inflammation, suppuration, abscess, and apoplexy, without the slightest trace of delirium. Indeed there can be no doubt that the central portions of the brain have functions very different from those on the surface. They appear more connected with another function of animal life—muscular motion and sensation. Then, let us examine the phenomena of old age. Every one is familiar with the fact that when a man arrives at an extreme age, he generally experiences a marked decay of intellectual power, and falls into a state of second childhood. Does pathology throw any light upon this circumstance? It does. From a series of ingenious and accurate investigations conducted by two continental pathologists, Cauzevielh and Desmoulins, it has been found that a kind of atrophy of the brain takes place in very old persons. According to the researches of Desmoulins it appears, that, in persons who have passed the age of seventy, the specific gravity of the brain becomes from a twentieth to a fifteenth less than that of the adult. It has also been proved that this atrophy of the brain is connected with old age, and not, as it might be thought, with general emaciation of the body; for in cases of chronic emaciation from disease in adults, the brain is the last part which is found to atrophy, and it has been suggested that this may explain the continuance of mental powers, during the ravages of chronic disease; and also the nervous irritability of patients after acute diseases, in which emaciation has taken place.

I might bring forward many other facts to show that phrenology is indebted to pathology for some of the strongest arguments in its favor, and I think that those phrenologists who neglect its study, or deny its applicability, are doing a serious injury to the doctrines they seek to establish. The misfortune is that very few medical men have turned their attention to the subject, and that with few exceptions, its supporters and teachers have been persons possessing scarcely any physiological, and no pathological knowledge. Phrenology will never

be established as a science until it gets into the hands of scientific medical men, who, to a profound knowledge of physiology, have added all the light derived from pathological research. To give you an instance of the mode of reasoning of the non-medical phrenologists. In their drawing-room exhibitions, they appeal with triumph to the different forms of the skull in the carnivorous and graminivorous animals with respect to the development of destructiveness; and all are horrified at the bump on the tiger's skull. But as Sir H. Davy well observes, this very protuberance is a part of the general apparatus of the jaw, which requires a more powerful insertion for its muscles in all beasts of prey. Phrenology, as generally taught, may answer well for the class of dilletantis and blue stockings, or for the purposes of humbug and flattery, but its parent was anatomy, its nurse physiology, and its perfection must be sought for in medicine. The mass of inconsequential reasoning, of special pleading, and of "*false facts*," with which its professors had encumbered it, must be swept away, and we shall then, I have no doubt, recognize it as the greatest discovery in the science of the moral and physical nature of man that has ever been made. I feel happy, however, in thinking that of late the science has been taken up on its true grounds, in Paris, London, and Dublin. Vimont's splendid work on Comparative Phrenology will form an era in the science. In London, Dr. Elliotson has directed the energies of his powerful mind to the subject, and in Dublin we have a Phrenological Society, of which Dr. Marsh is the president, and my colleague, Dr. Evanson, the secretary, and under such auspices much is to be expected.

Having drawn your attention to the ordinary symptoms of local encephalitis, our next inquiry is how far we can diagnosticate the actual seat of disease from phenomena observed during the life of the patient. Do not suppose for a moment that this part of the subject is undeserving of your attention, in the strongest sense of the word. Recollect that the more accurate and extensive is diagnosis, the more certain and available is the practice of medicine. On this subject matters are not altered to the same extent as in the cases of chest, or abdominal diseases. In our knowledge of the two latter we have made vast strides within the last few years, but in cerebral affections, though much has been effected, much still remains to be done; and it is not improbable that some of the opinions on this subject still promulgated in schools require correction. If we examine the various cases of cerebral disease on record, we find that in some the paralysis was complete, and that sensation and muscular motion became as it were annihilated. In other cases the muscular system alone appeared to suffer, while in a third class we find that sensibility is destroyed, while the power of motion remains intact. Again, in some we have complete hemiplegia, in others the paralysis is but partial; in some the affection is slight and transient, in others it is incurable and permanent. The result of all this would appear to imply that there are different states and seats of cerebral disease, producing different modifications of nervous phenomena. It has been taught that a paralysis of the organs of speech, points out a lesion of the anterior lobes of the brain, and there are many cases on record in support of this opinion. Here is a pathological statement strongly in favor of the doctrines of phrenology. But on the other hand it must be confessed that there are numerous cases on record of lesion of the powers of speech, independent of any affection of the anterior lobe; and hence as far as the diagnosis of lesion of the anterior lobe, derived from loss of speech is concerned, we cannot make up our minds. You are aware that the phrenologists place the organ of language in the anterior inferior part of the brain. Now when an affection of this portion of the brain is found to coincide with the loss of speech, it is all very well, but the difficulty is to account for those cases of loss of speech, in which there is no appreciable lesion of the substance of the anterior lobe. In investigation on this point, however, you must bear the following distinction carefully in mind. The organ of language of the phrenologist is not properly the organ of the *power of speech*, but that by which, as it were, thought is converted into language. A man, from paralysis of his tongue, might be incapable of speaking, and such a case, existing without lesion of the anterior lobes, might be most unfairly quoted against the phrenologist. Again, paralysis of the upper extremities has been connected with disease of the optic thalami and posterior lobes of the brain. It is the opinion of Bouillaud, Serres, and

others, that the optic thalami regulate the motions of the upper extremities, and it is a fact, that in many instances of paralysis of the upper extremities, disease has been found in these parts. We might term the following a synthetic case, illustrative of the doctrine:—"A soldier was wounded in the right shoulder with a lance, in consequence of which he got an aneurism of the axillary artery, for which an operation was performed. At the moment the ligature was tightened he experienced exquisite pain in the situation of the ligature, which extended to the brachial plexus; this continued until the next day and then ceased. On the fourth or fifth day the pain returned with increased violence, and continued until the seventh day, when it became intolerable. He was blooded, but without any good effect, he then became comatose; his head was drawn backwards; he had alternations of stupor and excitement, and soon after expired. On dissection the ligature was found to embrace some of the principal branches of the brachial plexus, and there was an abscess in the posterior lobe of the brain, extending to the optic thalamus. Here we have a case of injury of the upper extremity, and that portion of the brain, which is supposed to govern it, was found in a state of manifest disease. Serres gives also the details of some experiments in support of this opinion. On removing the posterior part of the right hemisphere of the brain in a dog, he found that the left anterior extremity became paralytic; he prolonged his incisions into the corresponding portion of the opposite hemisphere, and found that the right extremity became paralysed. In another dog he plunged a bistoury into the posterior part of the right lobe, and found that the left anterior extremity became affected with convulsive motions. He then introduced into the wound a few drops of nitric acid, so as to produce inflammation of that portion of the brain, and observed that the convulsions of the left fore-foot became more violent; in fact that the animal had all the symptoms of a local inflammation of the brain, namely, convulsions, rigidity, and then paralysis. Rolando has performed a series of experiments with the same view, and his conclusions are exactly those of Serres. So that if we connect the results of these experiments with some facts drawn from pathology, we might conclude that the optic thalami, and posterior lobes of the brain, have a very important share in regulating the muscular motions of the upper extremity. I may here state, that, in this city, a case of a female occurred, who got an attack of severe pain in the left hand and fingers, which became afterwards contracted, and she had, in addition to this, alternate flexions and extensions of the fore-arm, *followed by resolution and paralysis*. On dissection there was an abscess found in the right optic thalamus; the rest of the brain was healthy.

With respect to those cases, in which there is paralysis of one of the lower extremities, it has been taught that it arises from disease of the corpus striatum. On the anterior lobe the following case is given by Serres:—"A woman 40 years of age, had an attack of apoplexy, from which she recovered with the left leg in a state of complete paralysis, and the left arm admitting of a slight degree of motion. Here was a case of lesion of both the upper and lower extremity of the same side, but in the former the paralysis was partial, in the latter complete. On dissection it was found that two circumscribed abscesses existed in the substance of the right hemisphere, the larger situated in the corpus striatum, the smaller in the optic thalamus. Another case is given of a patient who got paralysis of the side; the muscular power of the arm being completely destroyed, while the leg retained a considerable degree of motion. In this case the corpus striatum was but slightly affected, while nearly the whole substance of the optic thalamus was destroyed. I have also to remark, that Serres performed similar experiments on the corpus striatum in dogs, and came to the conclusion, that it governs the motions of the lower extremities. The structure, extent, and special action of the corpus striatum and optic thalamus, are said to afford some explanation, why, in ordinary cases of paralysis, the arm is more often affected than the leg, and does not recover so soon. The fact of the prolongations of the optic thalami being much more complicated and extensive than those of the corpora striata, is thought to explain their greater liability to disease.

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These facts, gentlemen, prove how uncertain the matter is yet. It would appear that when a simultaneous and equal injury of both corpora striata and optic thalami exists, it would be natural to expect complete paralysis of one side, and I believe there are some cases on record in support of this opinion. But when you have paralysis affecting both sides of the body, you are not to suppose that there is necessarily an affection of the corpora striata and optic thalami, for such symptoms, in the majority of cases, are found to depend upon either an intense congestion of the brain, or a large serous, or sanguineous effusion. The same phenomena are produced by the pressure exercised by the disease on the sound hemisphere, in a case of local encephalitis, or by disease affecting the upper part of the spinal cord.

With respect to disease of the cerebellum, the only means of determining its affections consists in first considering the seat of the pain, if any, and in the next place the effect on the genital system. There are a great number of cases detailed in various treatises in proof of the close connexion between the cerebellum and genital function. I shall relate a few of these. A man, aged thirty-two, got an attack of apoplexy, followed by a violent erection of the penis, which continued until death; here we have a case of apoplexy accompanied by pryapism. On dissection the whole of the cerebrum was found healthy; but there was an apoplectic effusion in the middle lobe of the cerebellum. Another case is given of a man, aged fifty-five, who died of apoplexy in a brothel, and who, after the attack, had violent pryapism.

On dissection the substance of the cerebellum was found to be extensively destroyed, and there was an apoplectic effusion in the fourth ventricle. There is a remarkable case on record of a prostitute, in whom the clitoris was extirpated, as it was considered that it was the irritation of that organ which brought on a pernicious habit, by which her health was greatly impaired; and it was conceived that as soon as the supposed source of excitability was got rid of, she would give up her vicious propensity, and be restored to health. But in this instance it is probable that the effect was taken for the cause; for on her death, which took place some time after, the cerebellum was found to contain a number of chronic abscesses. Serres gives the case of a woman who died of an apoplectic effusion into the cerebellum. During the fit she had hemorrhage from the uterus; and, on examining that organ after death, a large clot of blood was found within its cavity, and the broad ligaments, ovaries, and, in fact, every part of the generative apparatus were in a state of high vascularity. Yet this female was seventy years of age, and her menses had ceased at the usual period. There is a most important case bearing on this point on record. A gentleman, who was subject to constant and distressing nocturnal emissions, consulted his physicians, who, considering them to be the result of debility, prescribed various tonic and stimulant remedies. He used various preparations of iron, bark, camphor, opium, hyoscyamus, nitric acid, and many other things of a similar kind, but without advantage. From the fact of the failure of all these remedies, and the circumstance of his having complained of an occasional sense of uneasiness in the back of the head, his physician was led to think that his symptoms might have some connexion with an excited condition of the cerebellum; and, under this impression, had the back of the head

shaved, leeched, and covered with a quantity of pounded ice. *From this time his symptoms began to decline rapidly, and in a fortnight he was quite free from complaint.* Now, this case taken singly, would prove very little; but when we view it in connexion with the number of cases in which disease of the cerebellum has been known to be followed by excitement of the genital organs, it becomes of considerable importance. I have now seen two cases in which this connexion was observed. In the case of a young man who was brought into the Meath Hospital some time ago with paraplegia, it was observed that the penis was in a state of constant erection, and there were continual seminal emissions. On dissection an effusion of blood was found in the cerebellum, and another in the hemisphere opposite the paralysed side. There was another case of a patient who was attacked with apoplexy and paralysis of one side, but with the unparalysed hand he continued to attempt the act of masturbation, so that it was necessary to tie down his hand. On dissection there were several effusions in the substance of the cerebellum. All these facts strongly go to prove the connexion which subsists between the cerebellum and the generative function; and I think it would not be unsafe to make the diagnosis of disease of that organ in cases of cerebral disease, where the genital system was much excited.

FOREIGN HOSPITAL REPORTS.—HOTEL DIEU.

Abscess in Front of the Axilla—Stagnation of Pus—Death—Autopsy.

Anne Coffurann, thirty years of age, of nervous temperament and feeble constitution, was admitted into this hospital, under the care of M. Sanson, December 26, 1833. In attempting to lift any weight she experienced acute pain in the superior part of the right side of the chest; there was great tumefaction in the right axilla, which was extremely painful, though the color of the skin remained unchanged, accompanied with shiverings and fever. The danger of a deep-seated abscess was apprehended, though no fluctuation could be detected; all means were employed to expedite the progression of the abscess. At first she was bled, and, in the course of five days, leeches were applied to the affected part, and baths were prescribed as frequently as she could bear them. At first, from this treatment, the symptoms became relieved, but in a short time they became worse, and fluctuation was evident.

M. Sanson endeavored to ascertain the situation of the tumor, and believed it to be between the two portions of the pectoral muscles. It appeared to be immediately behind the axillary artery, which it had pushed forwards and outwards, and separated from the pectoral muscle and integuments by the coraco-clavicular fascia. From the depth of the abscess and its strong coverings anteriorly, M. Sanson feared that it would open into the cavity of the chest, or extend into the anterior mediastinum. He, therefore wished to make an external opening as speedy as possible, though not the slighest inflammatory blush was perceptible on the cutaneous covering.

On the 6th of January, eleven days from her admission, he made an incision, two inches and a half in extent, dividing at first the integuments, then some of the fibres of the great and lesser pectoral muscles, when a small quantity of pus escaped from the orifice, in consequence of which, with a blunt-pointed bistoury, the wound was enlarged, which allowed a free exit to the collected matter. The divided edges of the wound were separated by means of a dossil of lint; the pus that escaped was of a good consistence and healthy. The patient was much relieved, though she was still restless, and was unable to sleep.

9th. This morning she complains of pain on the right side of the posterior part of the chest, accompanied with diarrhœa. A starch injection was administered, which arrested the looseness, and leeches were applied to the painful part. The next evening the diarrhœa returned, an opiate clyster was administered, after which she obtained a comfortable night.

10th. Complains of a disagreeable odor from the suppuration; the wound to be washed with a mixture of the chloride of soda and water, and the bed to be sprinkled with the same fluid several times during the day. In the evening she became much worse, nausea and vomiting supervened.

In spite of all remedies the patient became weaker. Some wine was prescribed, of which she took but a very small quantity at a time. This appeared to rouse her from the lassitude and exhaustion of which she was suffering. A roll of lint was now placed in the axilla, and retained in this situation by means of a bandage, so as to approach the united edges of the wound. On the 16th all the symptoms appeared relieved; nausea and relaxation had ceased; strength much improved.

For some days the patient complained of slight pain in the cavity of the axilla, especially towards the edge of the omo-hyoid muscle. Every day this region was examined with the greatest care; skin remained unchanged; a probe was introduced into the wound, and directed towards the border of the omo-hyoid muscles, where she complained of the most suffering. No further diagnosis could be ascertained; the pain remained stationary.

28th. From the increase of symptoms a counter-opening was indicated. The application of compression was discontinued, in the hope of permitting the stagnant pus to escape by its own gravity, which however did not take place, neither was the counter-opening practicable from the deep situation of the abscess. For the sake of keeping up her strength, if possible, she was wheeled about in a chair, which, though it at first excited vomiting, appeared to revigorate her bodily powers; tongue brown and dry; no appetite.

All the symptoms evidently arising from the stagnation of pus, and the impossibility of making a fresh opening, M. Sanson decided on increasing the one already made. He thus prolonged the extent of the wound inferiorly, first ascertaining the exact situation of the artery; and by dividing the external lip of the wound beneath the lesser pectoral muscle, a large quantity of pus escaped; no hemorrhage supervened. Some extract of bark was prescribed. The patient experienced slight alleviation; but, in spite of every precaution, the matter continued to collect, suffocation accompanied with cough came on, which daily appeared to increase, dyspnœa became intense, and on the 12th the patient died.

Autopsy.—On examining the abscess, a clot of blood was found in its cavity, and the axillary vein was perforated. The quantity of blood that had escaped could not be ascertained, in consequence of being obliged to dislocate the clavicle, which much increased its quantity. The abscess extended from the sixth intercostal space to the clavicle, circumscribed internally, but externally the anterior walls were very thin, and extended between the greater and lesser pectoral muscles, also between the subscapular and serratus magnus. The intercostal muscles had become nearly absorbed, especially the third, through which the pleura could be observed; and, in one point, this membrane had contracted adhesions with the internal wall of the abscess. All the viscera were healthy.

HOPITAL DES ENFANS MALADES.

Cephalalgia—Paralysis of the left Side—Strabismus—Prolapsus of the left Eyelid—Death—Autopsy.

——Patie, three years and a half old, who had enjoyed perfect health up to the first of March last, when she complained of pain in the head, became dull, morose, and exceedingly indolent. In the course of a month from the attack of cephalalgia, without any apparent cause, she was seized with vomiting, which continued for two days, and then disappeared. She was always troubled with acute pain in the head, which became at intervals much more severe; at this time a sensation of numbness attacked the limbs of the left side, and strabismus of the left eye followed. The numbness increased so rapidly, that, in the course of three weeks, locomotion, or walking, was impossible. Somnolency came on: irregular accessions of fever supervened; diminution of appetite; constipation. She was free from delirium and convulsive movements of the limbs. Before her admission into the hospital, she had been under medical treatment. Leeches had been applied to the head, and a blister to the back of the neck; tepid baths had been prescribed, with cold lotions to the head.

When admitted on the 6th of May, she was unable to lie on the back; countenance anxious and emaciated; distortion of the mouth; strabismus of the left eye, with prolapsus of the right superior eyelid; voice feeble, articulation difficult, with paralysis of the left limbs, the superior

others, that the optic thalami regulate the motions of the upper extremities, and it is a fact, that in many instances of paralysis of the upper extremities, disease has been found in these parts. We might term the following a synthetic case, illustrative of the doctrine:—"A soldier was wounded in the right shoulder with a lance, in consequence of which he got an aneurism of the axillary artery, for which an operation was performed. At the moment the ligature was tightened he experienced exquisite pain in the situation of the ligature, which extended to the brachial plexus; this continued until the next day and then ceased. On the fourth or fifth day the pain returned with increased violence, and continued until the seventh day, when it became intolerable. He was blooded, but without any good effect, he then became comatose; his head was drawn backwards; he had alternations of stupor and excitement, and soon after expired. On dissection the ligature was found to embrace some of the principal branches of the brachial plexus, and there was an abscess in the posterior lobe of the brain, extending to the optic thalamus. Here we have a case of injury of the upper extremity, and that portion of the brain, which is supposed to govern it, was found in a state of manifest disease. Serres gives also the details of some experiments in support of this opinion. On removing the posterior part of the right hemisphere of the brain in a dog, he found that the left anterior extremity became paralytic; he prolonged his incisions into the corresponding portion of the opposite hemisphere, and found that the right extremity became paralysed. In another dog he plunged a bistoury into the posterior part of the right lobe, and found that the left anterior extremity became affected with convulsive motions. He then introduced into the wound a few drops of nitric acid, so as to produce inflammation of that portion of the brain, and observed that the convulsions of the left fore-foot became more violent; in fact that the animal had all the symptoms of a local inflammation of the brain, namely, convulsions, rigidity, and then paralysis. Rolando has performed a series of experiments with the same view, and his conclusions are exactly those of Serres. So that if we connect the results of these experiments with some facts drawn from pathology, we might conclude that the optic thalami, and posterior lobes of the brain, have a very important share in regulating the muscular motions of the upper extremity. I may here state, that, in this city, a case of a female occurred, who got an attack of severe pain in the left hand and fingers, which became afterwards contracted, and she had, in addition to this, alternate flexions and extensions of the fore-arm, *followed by resolution and paralysis*. On dissection there was an abscess found in the right optic thalamus; the rest of the brain was healthy.

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On dissection the substance of the cerebellum was found to be extensively destroyed, and there was an apoplectic effusion in the fourth ventricle. There is a remarkable case on record of a prostitute, in whom the clitoris was extirpated, as it was considered that it was the irritation of that organ which brought on a pernicious habit, by which her health was greatly impaired; and it was conceived that as soon as the supposed source of excitability was got rid of, she would give up her vicious propensity, and be restored to health. But in this instance it is probable that the effect was taken for the cause; for on her death, which took place some time after, the cerebellum was found to contain a number of chronic abscesses. Serres gives the case of a woman who died of an apoplectic effusion into the cerebellum. During the fit she had hemorrhage from the uterus; and, on examining that organ after death, a large clot of blood was found within its cavity, and the broad ligaments, ovaries, and, in fact, every part of the generative apparatus were in a state of high vascularity. Yet this female was seventy years of age, and her menses had ceased at the usual period. There is a most important case bearing on this point on record. A gentleman, who was subject to constant and distressing nocturnal emissions, consulted his physicians, who, considering them to be the result of debility, prescribed various tonic and stimulant remedies. He used various preparations of iron, bark, camphor, opium, hyoscyamus, nitric acid, and many other things of a similar kind, but without advantage. From the fact of the failure of all these remedies, and the circumstance of his having complained of an occasional sense of uneasiness in the back of the head, his physician was led to think that his symptoms might have some connexion with an excited condition of the cerebellum; and, under this impression, had the back of the head

The opinion expressed in these passages is abundantly confirmed in the paper before us, by reference to various weighty authorities, and to cases since met with by the author, or communicated to him by professional friends. Dr. Booth, of Birmingham, among others, has supplied some curious experiments, which serve well to exemplify the powers of strychnia; they fully suffice, at all events, to dissipate Dr. Christison's doubt about the action of this alkali on the brain.

EXPERIMENT 1.—Tuesday, April 26, 1831: on a shepherd's dog, about one year old, weight 24 lbs. At four p. m. one sixth part of a grain of strychnia, inserted into a small piece was thrust down his throat. The animal was closely watched until seven p. m. but no effect from the pill was observable. 27th, three p. m. another pill, containing one-fourth of a grain of strychnia, was given. The dog was watched as before, but no effect was noticed. The dose (gr. 1-4) was repeated on the 29th and 30th, but equally without any apparent effect having been produced by it. May 1st, four p. m. a pill, containing half a grain of strychnia, was administered; at a quarter before five, no effect was observable; at five he was found lying on his side, with his legs extended, mouth open, and his whole body in convulsions. His mouth would frequently close with a loud snap; the pupils of the eyes were alternately dilated and contracted. Respiration was carried on with difficulty, and the action of the heart was very irregular; sometimes contracting ten or twelve times in rapid succession, then suffering an intermission of three or four seconds. The animal continued in this state till ten minutes past five o'clock, when, the convulsive action of the muscles gradually subsiding, he died.

Sectio cadaveris, four p. m. *May 2, twenty-three hours after death.*—The calvarium, and the exterior portion of the vertebral column, having been removed, so as to expose, at one view, the brain and medulla spinalis, the following were the appearances noticed:—

Brain.—The blood-vessels injected, and beautifully arborescent. The pia mater covering the medulla oblongata particularly vascular or injected. The choroid plexus very vascular. No serum in the ventricles. In cutting into the substance of the brain, several dotted points were observed.

Medulla Spinalis.—In the bony cavity of the spine there was much congestion about the sinuses, and great vascularity of the membranes about the upper dorsal and the lower lumbar vertebræ. The dura mater of a light pink color, and turgid. The arachnoid membrane natural. The internal structure of the cord itself was dotted with sanguineous points.

Thorax.—In the cavity was contained from about ℥ss. to ℥j. of fluid. The lungs were collapsed and congested, but did not sink in water. The heart was turgid, and on both sides filled with black blood.

Abdomen: Stomacy.—The mucous coat had a slight pink blush.

Intestines.—In the *ileum* were found several patches, varying in magnitude from the size of a sixpence to that of a shilling; also an oblong patch of four or five inches in length, and a finger's breadth, apparently the seat of ulceration in the mucous coat of the intestine. It had a reticulated appearance. The aggregate and solitary glands were seemingly the parts affected. In the *colon* the same appearances were more sparingly found. In the cœcum and rectum numerous and prominent pustules or pimples, with a point of depression in the centre of each, and containing a viscid fluid, were very conspicuous, giving altogether, an appearance not dissimilar to small pox pustules in the early eruptive stage.

EXPERIMENT 2.—May 1, 1831: on an old terrier dog. At four p. m. a pill, containing a quarter of a grain of strychnia, was thrust down his throat, enveloped in a small ball of fat. The animal was carefully watched for four hours afterwards, but no appearances indicative of any influence from the strychnia presented themselves. May 2, at four p. m. another pill, containing the same quantity of strychnia (gr. 1-4), was given. The dog was watched for four hours afterwards, but no symptoms of inconvenience were observed. May 3, at four p. m. the animal swallowed the same dose, in the same manner as before, and was similarly watched, but no observable effects were produced by it. May 4, at four p. m. another pill, containing a quarter of a grain of strychnia, was administered. The animal was watched till seven o'clock (three

hours after having taken the pill), but no symptoms of its having taken effect were observed. May 5th, ten a. m.: on visiting the dog, with the intention of giving him food, he was found lying on his side, quite dead and cold; his limbs stiff and extended. A quantity of frothy mucus adhered to his mouth. His jaws were so firmly closed, that considerable difficulty was experienced in forcing open his mouth, the muscles, generally, were in a spastic state.

Sectio cadaveris, four p. m.—External appearances: the limbs were in a state of spastic rigidity. The *brain*, although rather gorged with blood, was not equally so with the preceding subject. The choroid plexus congested and dark-colored. No effusion in the ventricles. Of the pia mater, some of the inflections following the convolutions of the brain were very vascular. An hydatid was found in the inferior horn of the right lateral ventricle.

Spine.—On opening the osseous canal of the spine, no effusion appeared to have taken place between the membranes of the spinal marrow. The surface, however, of the pia mater, about the cervical and upper dorsal vertebræ, was vascular. The structure of the cord itself was healthy, excepting that the lumbar portion was rather softer than the upper.

The Thorax.—The lungs, on both sides of the thorax, were collapsed, dark-colored, and gorged with blood, and barely buoyant in water. The trachea, internally, was of a bright pink color, and coated throughout its ramifications with a frothy mucus. The pericardium exhibited an inflammatory blush, together with recent depositions of lymph both on the reflected and proper surfaces of the membrane. The heart contained no coagula in its cavities, neither did the large veins or arteries. The heart was distended with dark blood; the blood had an unctuous appearance.

Abdomen.—Stomach: its villous coat along the greater curvature was softened, and of a brownish color.

Intestines.—In the duodenum, softening of the mucous coat, with two or three ulcerated patches, was observed; in the ileum, particularly at its junction with the cœcum, ulcerations, having pits or foveæ, like the depressions on the rind of a rough or coarse orange, were conspicuous. The colon throughout was studded with small prominent elevations, each having a depression at the apex, and not unlike the immatured pustules of small pox. This eruptive appearance was more particularly observable about the appendix vermiformis and rectum. The aggregate and solitary mucous glands of the intestines were undoubtedly the seats of this appearance."

"As a candid inquirer after truth," says Dr. Booth, "the preceding facts and observations have irresistibly impressed my mind with a conviction of the fallacy of the hypothetical doctrines, according to which an entire class of vegetable poisons (the bitter strychnos) is said to possess the singular property of expending, through the medium of the circulation, their influence on the spinal marrow, without directly involving the functions of the brain, or uncombined with any injury of that organ. Paris's Pharm. (Ed. vi.) vol. i. p. 24. Christison on Poisons. (Ed. ii. p. 754.) The action of strychnia on the spine is represented as even quite *independent* of any action on the brain, '*if, indeed, such action exist at all.*' (Christison on Poisons, 2d ed. p. 19.) To the same effect Orfila has recorded the result of an experiment (on Poisons, vol 2, p. 270, 2d edit.), but I may venture to observe, that the very irritation itself consequent on dividing the spinal marrow of animals, will keep up spasmodic action; and that, with respect to indications of the state of the brain during such experiments, we do not possess adequate criteria by which we can, in animals, satisfactorily determine the fact. In man, however, we have indisputable means of assuring ourselves of the participation of the brain in the energetic influence exerted by strychnia on the spinal marrow and its nerves. The representations made by the patients themselves, almost uniformly, of their suffering pain in the head, and vertigo, *previously* to the invasion of the spinal convulsions, and during those convulsions; the palpable indications afforded of the nerves supplied by the brain being affected in the nictitation of twitching of the eye-lids, and agitation of the muscles of the countenance, from clonic spasm, collectively demonstrate the influence of the alkali on the brain itself. This very day I had occasion to observe the existence of the cerebral influence of strychnia,

in a patient affected with hysteric-paraplegia, for fifteen minutes *before* any indications of the specific spinal effects of the alkali supervened. The patient is, at present, taking forty-two drops of the tincture of strychnia every six hours. She has been under a course of the medicine during seven weeks, beginning, originally, with thirty drops, and I am happy to say that she has derived the *most striking advantage* from its cautious and persevering use, far surpassing, in a very obstinate and perplexing case, *the effect of every other varied method of treatment.*" The more immediate object in my view, when citing this case, is the perfect illustration it affords of the absolute influence of strychnia on the brain, as well as on the spinal marrow; for the former has uniformly preceded, and has, sometimes, even not been succeeded by the specific manifestations of the latter species of influence.

With regard to the mode of employing strychnia as a medicine, Dr. Bardsley says—"In the *internal* administration of strychnia, I have mostly commenced with one-sixth of a grain twice daily, and this proportion has been gradually increased to half a grain or a grain at the same intervals; but half a grain of the alkali, taken three times in the day, has generally produced sufficiently energetic effects upon the system. In the *external* use of the alkali, I have been in the habit of directing one fourth of a grain to be sprinkled on the blistered surface, night and morning, and the quantity has been increased to half a grain, a grain and a half, and two grains, applied twice in the day."

DR. T. GREEN ON THE TREATMENT OF SYPHILIS WITHOUT MERCURY.

This paper is chiefly a digest of the remarks of some of the ablest advocates for the non-mercurial treatment of syphilis. We could have wished the author had given us more of the details of his own experience; but as it is, the paper is valuable as a summary of the best information that can at present be collected on the subject. The following protest against the supposed specific virtues of mercury in venereal, is worth giving at length:—

"While all the facts I have now mentioned prove that syphilis can be cured without mercury, I do not, for a moment, contend that its use should be abandoned altogether in the treatment of venereal complaints. Mercury should be given in these complaints, with the same intention as if precisely similar symptoms occurred from any other cause. The well known power of mercury, when used cautiously and moderately, to improve the general health, to remove chronic inflammations, and diseases of an indolent kind, indicates its use, in some few cases, for the symptoms of syphilis, as if they occurred from any other disease, without reference to any *specific character*. While I admit its use in some cases of syphilis, not for a moment *as a specific*, but on the general principles above stated, I contend that the cases requiring it are but few; a very large proportion of veneral diseases can be as well, if not better, cured without mercury, and *certainly more safely*, because the risk is not incurred of producing the truly melancholy results, which, in some constitutions, follow the treatment of syphilis with this mineral. I think its use, in primary symptoms, should be given up altogether, at least until there appears some indication for its employment. It cannot now be maintained that a chancre is cured one day sooner where mercury is given, than where it is not; as far as any comparison of evidence goes, it would appear that these sores are sooner cured where mercury is not given. If this be true, we gain nothing by using this remedy, and incur the risk of inflicting a severe injury on the patient, as every practical surgeon knows well, that chancres do sometimes assume a gangrenous and phagedenic character under the mercurial irritation, occasionally ending in the loss of a portion, or the whole, of the penis, before the destructive processes can be arrested. The only intention with which mercury can be given, in this stage of the disease, is to prevent the introduction of the venereal poison into the system. But, has mercury this preventive influence? Unfortunately, the history of the venereal disease, under the most full and efficient mercurial treatment, proves that it has no such power. It is too well known, that if mercury succeeds once in preventing secondary symptoms, it fails altogether, in too many instances to allow us to place reliance on it as a preventive of constitutional symptoms. It is certain that secondary symptoms occur whether mercury be given or not; but whether they follow more frequently in the one case or the other, is, as yet, entirely undecided."

In iritis alone, when it occurs as a secondary symptom, is mercury indispensable—not, however, as the author takes care to add, as an antidote to any venereal virus, but to arrest the effects of inflammation in the eye; and, says Dr. Green, in conclusion—"While I have endeavored to prove that mercury is not a *specific* for syphilis, I admit, to the fullest extent, its value in the treatment of other diseases. Those only who have tried this powerful remedy in inflammations of the head, chest, or abdomen, in iritis, in chronic enlargements of the testicle, &c., or as a discutient, wherever thickening or induration is to be removed, can be fully aware of its value. I think the better we become acquainted with the effects of mercury, the more shall we resort to it in other complaints, the less so in venereal diseases."

In an elaborate paper *On Chronic Peritoneal Inflammation, and its Treatment*, by Mr. E. Thomson, of Whitehaven, we have the opinions of all the most eminent ancient and modern authorities on the complaint; together with the experience of the author, set forth in a series of cases, tending to prove the superior efficacy of mercury as a remedy for it. Mr. T. says—

"I have thus presented to the society a variety of cases, in proof of the peculiar effect of mercury in an affection allowed to be of the most dangerous character. The cases have been selected from amongst a great number, to elucidate particular views advanced in the remarks. That there is no remedy yet known equal to mercury, in the cure of this disease, I think must be admitted; and as it may be employed in all stages of the affection, without the slightest danger, it is one deserving of farther confidence than it has yet received. Respecting the exhibition of mercury, I can state, from the extensive employment of it, that I have never witnessed any affection of the bones, &c. produced by it, unless the system had been affected with the venereal disease previously; and I cannot resist, in this place, offering the meed of praise to Dr. Musgrave, for being the promulgator of so valuable a fact."

Case of Lithotomy by the Rectum; by Mr. Dawson, surgeon to the Liverpool infirmary, &c.

This case we shall lay before the reader in a very slightly abridged form.

"Robert Cox, nearly three years and a half old, of diminutive form and sickly aspect, was admitted into the Liverpool infirmary in January 1832.

"The history of this child's sufferings, during the past six months, was detailed by his father; and it was sufficiently distressing to lead to the belief of the presence of a stone in the bladder. After a few days of repose, the sound was passed, but no calculus could then be detected. The urethra was found to be short and very narrow, admitting with difficulty the smallest instrument. The bony outlet of the pelvis was deformed; the space left between the conjoined pubic and ischiatic branches being narrowed to a degree I had never before witnessed; this space, by admeasurement, not exceeding one-third of an inch; the course of these branches, to within one quarter of an inch in front of the anus, was nearly parallel; from this point into the tuberosities their divergence was abrupt, leaving ample space for the anus itself.

"Rigors, nausea, and complete prostration of strength, were the immediate result of this search, as indeed, they were of every subsequent one. It is scarcely requisite to state, that these examinations were invariably conducted with all due care and gentleness, or that sufficiently protracted intervals of repose were always allowed for the purpose.

"The act of passing his urine was succeeded by a state of weakness bordering on syncope, by the eversion of the lining membrane of the rectum, and by the escape of its contents.

"After remaining in the infirmary for a few weeks, during which period the search for a foreign body was renewed, but in vain, he was sent home to his parents, in the hopes that, by their soothing attentions, his general health, which was by no means in a satisfactory state, might be improved, and in the expectation, also, that a little further delay might unfold, and thence enable me to detect, some tangible, or at least, some intelligible, cause for his hitherto unmitigated sufferings. On his return, however, in five months afterwards, he was in no respect improved.

"His mother had entirely neglected him; she had allowed the anus to remain in a state of prolapse nearly all this time, so that the exposed mucous membrane had acquired a deep purple

tint, was beset with excoriations and ulcerations, and presented, altogether, a very menacing appearance.

"Some pause was necessary, in order to bring the part into a condition to bear any future exploration.

"Taking advantage of a tranquil state of the rectum, I passed the finger, when its point was abruptly met, about half an inch within (or beyond) the fibres of the sphincter ani, by a bulging downwards, in a pouch like form, of the upper wall of the rectum, through which membrane could be felt, but not very distinctly, the outline of a solid, and hence, probably, a foreign body, of about the size of a large Spanish olive, which appeared to be firmly seated in its novel situation.

"The bladder was forthwith sounded, when the instrument struck against a stone. The foreign body sustained by, and felt through, the medium of the anterior wall of the rectum, was hence satisfactorily identified with the calculus just detected in the bladder. Here, then, was an instance of sacculated stone. It is useless to inquire whether the pouch was a congenital or an accidental formation. One thing seemed to be certain, viz. that owing to the extreme narrowness of the bony outlet, the calculus was inaccessible by the usual lateral operation; indeed, I feared, at one time, it might be so by any other route.

"By the division, in a semi-lunar form, of the structures lying in front of the anus—that is, with the concavity of the incision looking downwards, and by a corresponding bilateral section of the imperfectly formed and compressed prostate gland, I might be enabled to approach the stone, but it would be almost impossible to extract it, without inflicting a degree of injury on that gland, and on its important connexions, that appeared to me to be unwarrantable. And then, with the division upwards (according to M. Sanson's method), of the fibres of the sphincter ani, of a portion of the anterior wall of the rectum, of the prostate gland, and of the neck of the bladder itself, I feared there must be associated the hazard, not only of forming a permanent communication between the bladder and the rectum, but also that of a loss of power in the sphincter ani; and, lastly, of dangerous infiltration of urine.

"It was manifest that, in approaching the concretion by this route, nothing need be divided but the anterior wall of the rectum, along with the lower fundus of the bladder lying in contact with it; the division of these investments might be made exactly in the median line, and to a limited extent, so as to leave, untouched, the sphincter ani in front; the undeveloped vesiculæ, and the terminations of the vasa deferentia on each side; and, I did venture to hope, the important fold of the peritoneum, should it also happen to form a part of the posterior face of the sac. The misery resulting from a permanent communication between the two outlets, seemed, in every way, unavoidable. But the grave anatomical objection remained, viz. how near to the base of the prostate gland might the reflected fold of the peritoneum advance; since, on the possibility, or otherwise, of its avoidance, the safety or danger of my patient depended.

"My colleagues, indeed, with their wonted kindness, endeavored to assure me that my apprehensions of danger, from this quarter, would prove to be groundless; it was a possible contingency, certainly, that, in the event of this important fold of the peritoneum being dragged down so far as to be implicated in the formation of the posterior boundary wall of the sac, still all communication with the abdominal cavity might be closed, by the adhesion of its contiguous surfaces, or by the interposition of plastic lymph, so that, should its division be unavoidable, the danger of opening a way into the serous membrane might not be the result: and, lastly, I was repeatedly reminded, that children bear these things wonderfully well. I determined, therefore, to operate, whenever he should be brought into a state of health that would justify such a procedure: his present weak and irritable condition, however, forbade any immediate operative measures.

"The agony he suffered in passing his urine, was estimated by the cold sweat and by the paleness of countenance that always accompanied this act, which might be termed the "paroxysm of expulsion." He was not very likely to recover his health under these distressing

circumstances, and every form of narcotic remedy was unsparingly, but unavailingly, administered. At length a very simple remedy was found to answer, viz. the introduction at stated intervals of an elastic gum catheter, which had been prepared so as to retain a permanent curve, without the wire, and which was always thus used. His nurse became so expert in the employment of the instrument, that no other aid was ever required. From this moment pain and spasm ceased, as far as the expulsion of urine was concerned, and they never afterwards returned.

"My attention was now directed to prepare the rectum for the presence of a new and exasperating secretion; which was likely to be a work of time and of difficulty. I did not apprehend any serious inconvenience would result from the reflux of the urine, along with the feces, into the bladder.

"Every variety of astringent, and of sedative injection, was used, but each was abandoned, in its turn, as worse than useless. At last, the injection of cold water alone was found to fulfill every indication; it appeared to soothe the mucous membrane better than any thing else. Twice every twenty-four hours the rectum was filled with it, and the decided comfort the child experienced was very soon made evident in his improved appearance. The bowel, in losing its irritability, entirely recovered its healthful tone and function, and among other beneficial results, he got rid of a chronic diarrhœa, to which he had been liable.

"In the space of a few months he had become stout, florid, and cheerful, and was, in fact, in more robust health than he had ever before been. Weeks and months were allowed thus to pass away, the child seeming too happy to be disturbed, and I was in no haste to interfere with the comforts he was now enjoying. Indeed, could the same degree of attention have been afforded him in all future time, the question might have arisen, whether any operation at all was justifiable? But of this there was no chance, and the operation was undertaken in January, 1833.

"*The operation.*—He was bound by no ligatures. The nurse supported him on a pillow on her lap, in the usual position. A gum lancet having its anterior edge rounded and very keen, was laid flat on the finger, which, thus armed and oiled, was introduced through the anus, so as to reach a point a short distance beyond the recto-vesical pouch, when its edge was turned upwards, and a decided cut made, by drawing the instrument from behind, forwards, in the median line, through the walls of the pouch, and up to the stone, on the hard surface of which the edge of the lancet was distinctly felt to grate.

"I may mention, that the back part of the blade of the instrument was blunted, which allowed the point of the finger to project beyond it, and which was thus at liberty to direct, as well as to execute, the intended incision. After pausing a few moments, to allow time for the retraction of the divided structures, the finger was again passed, when the calculus was felt to be entangled among a mesh of elastic fibres; hence a second section became necessary, in effecting which the speculum was employed.

"The calculus was now found seated in the upper or vesical region of the sac, whence, having been displaced by the finger, it fell into the rectum, from among the valvular folds of which, after eluding the attempt once or twice, it was finally withdrawn by the help of Pellier's double silver wire, which served the purpose of scoop and lever. No blood was lost. The operation lasted nearly five minutes.

"The calculus was found to be much smaller than we had been led to expect. I have omitted to state that, during the operation, a quantity of hardened or dried mucus escaped, along with the feces, through the sphincter ani; it resembled, in form, the peeled skin of a small apple, and it struck us at the moment that this substance might have been coiled round the lower moiety of the concretion, something after the manner of the cup of the acorn, and might, in this way, have added to its apparent magnitude.

"The child passed two liquid stools on the day of the operation, in each of which a clot of blood was found, equal in quantity to about two drams. He passed a very tranquil night. During the four succeeding days the evacuations from the rectum were chiefly made up of,

urine. About this period of the after-treatment, 'Clot Bey' visited our infirmary; he expressed great interest about the child, but he gave me no hope whatever of the ultimate closure of the communication between the two outlets. A very slight degree of tenderness was detected, on pressure, at the lower part of the abdomen, on the second day after the operation; but this was very promptly and properly treated by the house-surgeon, Mr. Simon, and no more was heard of it afterwards. On each succeeding day two liquid motions were passed, the urinous admixture being always perceptible in them; the anus, however, remained free from the slightest appearance of excoriation.

"And now was experienced the benefit of the sphincter ani. The control exercised by the fibres of that muscle kept him clean and dry. It was only when the desire to empty the bowel came on with too much suddenness and urgency to allow time for the bed-pan to be placed under him, that his bed-clothes or body-linen were at all stained by the excretions.

"On the tenth day from that of the operation, to my surprise and delight, I found he had passed his urine, to the amount of four ounces, in a full stream through the penis; it was voided without pain, or straining, or spasm. After this no urine was ever detected in the evacuations.

"The calculus, twenty-four hours after extraction, and spontaneously dried, weighed just sixty grains. A few particles had been separated in the operation. It consisted, externally, of ammoniaco-magnesian-phosphate. The internal part, when seen, consisted of phosphate of lime."

LECTURE, BY DR. RYAN, AT THE WESTMINSTER DISPENSARY, 1833.

Rules for the use of Therapeutics in Diseases of Infants—Purgatives—Anodynes and Soothing Syrups—Emetics—Aromatics—Absorbents—Antacids—Saline Medicines—Blisters—Irritants—Mustard Poultices and Fomentations—Antimonial and Stimulating Ointments and Liniments—Blood-Letting—Venesection—Leeching—Cupping and Dry-Cupping.

GENTLEMEN,—I shall now direct your attention to the precautions necessary in applying our remedial agents to the diseases of infants and children. It may be laid down as a general proposition, that a very small number of medicines are employed by the most experienced practitioners in the complaints of early life. Sydenham considered that weakness and ascescence of the stomach were the predisposing cause of the diseases of infants; and, to correct these, he used two remedies in his practice,—infusion of rhubarb and animal sal volatile. Harris maintained that ascescence in the bowels was the cause of almost all infantile complaints, and seldom prescribed any remedy but crabs' eyes. Armstrong held that increased mucous secretion of the intestinal canal was the chief causes of diseases in early life, and preferred ipecacuanha. Others, who considered the glandular and secretory systems most commonly affected, introduced mercury. The eastern practitioners were of opinion that theriacs, which consisted of a variety of aromatic medicines, were indispensably necessary to fortify the system. It was only within a short period that a correct pathology and treatment of infantile diseases were determined.

In the year 1777, the French government ordered a small box of medicines, with instructions for their use, to be arranged, and transmitted to the remote parts of the kingdom. This order confided their choice and preparation to M. Lasonne, and their distribution to M. Lenoir. M. Guenet was deputed to prepare a small book on the diseases of infants at the breast, which was inclosed in each little medicine chest. This beneficial order led to the happiest results. The magistrates in the departments superintended the distribution of the works and medicines, and, according to M. Leroy, were the means of preserving more than twenty millions of infants, who would have perished through ignorance or the want of medicines.—(*Medecine Maternelle.*)

An order of this kind is unnecessary in this kingdom, as a humane public secures the best medical aid to the poorer classes of society. But in remote parts of the country, where

medical advice cannot always be obtained, and where there is a young family, it would be advisable to have a few medicines for domestic use. These should principally be cathartics, and a few others, which I shall mention; but parents ought never attempt to treat the diseases of their children, unless when medical aid cannot be procured. They never should employ patent medicines, such as Dalby's Carminative, Godfrey's Cordial, soothing syrups for hastening the cutting of the teeth, or quack medicines of any sort. All these are dangerous in the hands of private individuals, are pretended cures for a variety of different diseases, and are not used by educated members of the medical profession, who are unacquainted with their component parts, and consequently would do an act of injustice to their patients and to their own reputation, by substituting unknown for efficacious remedies. There is no fact better established than that a vast number of delicate children are annually destroyed by the use of narcotics under the title of soothing syrups.

I have already noticed the difficulty of distinguishing their diseases, even by the most experienced practitioners; and hence the danger of parents and nurses attempting to treat them.

Let us now consider the medicines most commonly employed in the treatment of the diseases of children.

Purgatives.—The principal purgatives used for infants and children, are manna, castor oil, rhubarb, magnesia, senna leaves (infused), calomel, Epsom and Rochelle salts, jalap, scammony, aloes, camboge, and sometimes elaterium.

New-born infants are generally purged with manna or castor oil; and nurses also use sugar and butter, or what they suppose to be syrup of violets, which is not now kept in the shops. When the mother has breast milk, there is no need of exhibiting aperient medicines to the new-born infant.

A small piece of manna, dissolved in warm milk, or half a tea-spoonful of castor oil, is the best aperient for a new-born infant. The French employ a syrup of chicory, the active ingredient of which is rhubarb.

I have already stated that it is impossible to fix the doses of medicines for infants, who differ in vigor and constitution; and the best rule is that we should always exhibit an under dose, and repeat it, if necessary.

As most children are fed with artificial and improper aliments, as pap, gruel, &c. besides the breast, ninety-nine in a hundred of them labor under irritation in the digestive tube,—the stomach and bowels; and, under such condition, purgatives, which aggravate the mischief, must be administered with caution and judgment.

Gastric and intestinal irritation generally exist when an infant suffers from hiccup, griping, flatulency, curdled or green motions, or when it is two, three, or five years of age, and craves for cold drink, picks its nose or lips, and has alvine motions of a dark green, white, or black color. When these symptoms are present it would be highly improper to administer senna, jalap, scammony, camboge, or elaterium; manna, castor oil, magnesia, rhubarb, and calomel, combined with aromatic powder, are the best remedies. If the former were administered they would probably induce inflammation, ulceration, or softening of the coats of the stomach and bowels, and most likely destroy life. The antimonial medicines, as the wine of this name, tartarised antimony, or tartar emetic, James's powder, antimonial powder, the oxide of antimony, and the powder or wine of ipecacuanha or hippo, are also contra-indicated and dangerous.

When an infant's motions are unhealthy or depraved during the first year of its life, castor oil, rhubarb and magnesia, rhubarb and calomel, with aromatic powder and loaf sugar, are the best aperients. The doses must depend on the strength of the infant. Let us suppose it is healthful and ordinarily developed for its age: it may be ordered a tea-spoonful of castor oil alone, or combined with a drop or two of oil of aniseeds to prevent griping; or three grains of rhubarb, five of calcined or carbonate of magnesia, three of aromatic powder to prevent griping, and ten grains of finely powdered loaf sugar; or the same proportions, omitting the rhubarb or magnesia, and substituting one grain of calomel. Any of these powders is best administered in honey, jelly, treacle, sweetened gruel, arrow-root, or some other thick fluid. The

dose may be repeated every four or six hours until it operates. One dose is sufficient in general; and in all cases there is danger that diarrhœa may be induced. Great caution is always necessary on this account.

Calomel is now a favorite purgative for infants, especially with those of the intestinal school, who refer every disease to derangement of the stomach and liver. Dr. Underwood was the first who exhibited it to children. He states, that he never saw it produce bad effects. It has long been observed that this or any preparation of mercury very rarely causes salivation in children, though it has been given to the amount of 180 grains in croup by a very venerable and celebrated Professor, Dr. Hamilton of Edinburgh. Nevertheless, it should not be frequently repeated alone as a purgative in ordinary health, as it renders the body extremely susceptible of the influence of cold, and predisposes to inflammation or congestion of the organs in the head, chest, and abdomen.

It is also to be remembered, that though calomel or other preparations of mercury very rarely induce salivation, even in the largest doses, numerous cases are on record, in which mercury caused ulceration and mortification of the gums and cheeks, which proved fatal. I heard of a case of hydrocephalus in which calomel was continued so long as to cause mortification of the whole of the integuments of the lower jaw, and finally a total separation of this bone from the upper jaw; and what was still as remarkable, the practitioner congratulated himself on the excellence of his treatment! I need scarcely state that the unfortunate infant died a most miserable and deformed object.

Gangrene of the gums or cheek is comparatively of rare occurrence; but it may, for anything we can foresee, happen in any individual case. The late Dr. Clarke had observed salivation in three cases only, under three years of age, and his practice was the most extensive in diseases of women and children.

Calomel is often given to children who refuse other medicines, as it is tasteless, and may be administered in a very small bulk, combined with honey, jelly, or mixed with butter and sugar and spread on bread. When continued for several days, it renders the evacuations from the bowels of a green color, and of a slimy appearance. It stimulates the liver and the glands of the bowels, it diminishes the action of the heart and arteries, and supersedes blood-letting in certain cases. It is, however, a most valuable remedy when given in small doses morning in and evening, combined with aperients as above mentioned, in cases in which the alvine evacuations are of a brown or dark color, and extremely fetid, as we often observe, from the age of one to five years. In such cases the liver is not acting properly, as it is well known that good bile gives the yellow color to the feces. It may be ordered as follows in such instances, and the quantities increased according to the strength and constitution of the infant: calomel six grains, rhubarb twenty grains, aromatic powder ten grains, sugar thirty grains, to be mixed intimately and divided into six papers or packets, one of which is to be taken morning and evening, unless it acts more than twice on the bowels. When the motions are brown, the hydrargyrum cum creta, or mercury with chalk, which is a milder and safer preparation than calomel, may be substituted for it in the above prescription. One, two, or three packets will, in most cases, restore the motions to the healthful yellow color. As there is generally irritation in some part of the mucous lining of the bowels in such cases, the diet should be mild and nutritious, as arrow root, sago—gravy with either—or mashed potato, &c.; but solid animal food should be avoided. When these powders are necessary, the infant should be carefully preserved from cold in winter and spring. During the first three months of life, the dose of calomel, as a purgative, is from half a grain to a grain; under the first year, from one to two grains; from the second to the fifth year, from three to four grains; and from the fifth to the seventh year, not more than four or five grains. The dose should be smaller when the constitution is delicate. It should not be given alone as a purgative, and it often acts violently in four or five grain doses even on adults.

The stronger purgatives are sometimes required for new-born infants. These must be administered with the greatest caution; so much as three tea-spoonsful of castor oil, four grains

of calomel, and ten of rhubarb, have been given without the desired effect. It is an admirable axiom, that in all diseases we should use the mildest remedies first, and when these fail, have recourse to the more powerful ones.

Rhubarb has long been a favorite purgative for children. Sydenham first introduced it into vogue, and considered it almost an universal remedy in diseases of infants. In France they make a syrup of the extract of rhubarb and chicory, which is a favorite aperient for new-born infants. Sydenham infused it in water, and ordered it to be administered with wine. M. Leroy imitated his example. Most practitioners prefer the tincture, though many still employ the infusion and extract. The powder is generally ordered as an aperient for children; and it is usually combined with magnesia, and aromatic powder, or ginger, as already stated. It is a safe and valuable medicine, and often stops diarrhœa when mild. It is also added to saline medicines, such as Epsom salts, and causes it to act mildly and efficiently. Rhubarb has fallen somewhat into disuse of late years, in consequence of its variable effects; but this arises from its being often adulterated with two or three parts of turmeric. Nevertheless, there is scarcely any remedy so generally employed in the treatment of the diseases of children from one to five years old. From the age of three to seven years, the infusion of senna with ginger, sweetened with sugar, and mixed with milk, is given like tea without detection, and is a safe and excellent purgative. A few grains of ginger should be mixed with the senna leaves before infusion, to prevent griping or intestinal irritation. The saline purgatives, such as Epsom salts, Rochelle and Glauber salts, are now very rarely exhibited to children. They are very unpleasant to the taste, and are not better than other aperients. Rochelle salts is sometimes added to veal broth prepared without common salt, and is divested of its taste. Few children could be prevailed upon to take any of the saline remedies. They in general dislike medicines, and therefore we must select those which are most free from taste and odor, and sweeten them whenever we can. There is a great difficulty in getting children to take medicines of any kind, and life is often sacrificed in consequence. If we reason kindly with a child who has any degree of sense, and if we give him some reward, he will show his tongue, take medicine, and even hold out his arm to be bled in some instances. When life is in danger, and persuasion has failed, compulsion is necessary, and this may be effected by closing the nostrils and holding the hands, inclining the body horizontally, when any medicine placed in the mouth must be swallowed. Parents do not act harshly by having recourse to these means, however disagreeable to their feelings, for the preservation of their children. The temper of children becomes irritable and changed during disease; they are generally peevish, refuse to remain in bed, or to be kept sufficiently warm in the arms of the nurse, by means of a shawl or blanket. They are often seized with inflammation of the lungs, which may be relieved by leeching, &c. but will lay the foundation of consumption or asthma. Few children permit a sufficient examination of their complaints, without their fears and passions being excited, and this arises from the injudicious conduct of parents in threatening them, when they require correction, to send for the doctor to bleed them or give them medicine. Every practitioner will acknowledge that it is of the greatest advantage to administer medicine as early as possible, as life may be saved by the timely use of an aperient, an anodyne, a warm-bath, or leeches to the head or chest.

Calomel, rhubarb, jalap, scammony, and camboge, are ordered in extreme cases of constipation, when milder means fail, and also in cases of worms or dropsy. The various formulæ will be given under the treatment of the diseases.

Elaterium is seldom ordered for children; but I have heard of a child under four years of age, who was supposed to be dying of anasarca and ascites after scarlatina, and who was ordered two grains of elaterium in divided doses in five or six hours, which caused twenty watery motions from the bowels, and completely cured the dropsy in the limbs and abdomen. The practice should be adopted, however, with great caution. Clysters are sometimes necessary, but the cases which will require them will be described hereafter.

Anodynes—Narcotics.—Parents and nurses destroy a great number of infants by anodynes,

such as laudanum, syrup of white poppy, formerly called diacodium, Godfrey's Cordial, Dalby's Carminative, and various soothing syrups; every one of which should be excluded from the nursery medicine chests when medical advice can be obtained. These remedies are given, however, by almost every mother and nurse to allay pain and produce sleep. All medical practitioners are unanimous in the opinion, that this class of medicines requires the greatest caution and skill in their administration. The mortality of infants caused by anodynes is incalculable. It was immense during the last century in some foundling hospitals, and is still considerable, in consequence of the universal custom among mothers, wet-nurses, and those who have the care of infants, of exhibiting soothing syrups.

"Nothing" says the late Dr. John Clarke, in his commentaries on the diseases of children, "is more uncertain than the effects of opium on young subjects, and it ought never to be employed, even by medical men, except with the greatest caution, as it sometimes acts with much violence, and has proved deleterious even in very small doses. Half a dram of genuine syrup of white poppies, and in some instances a few drops of Dalby's Carminative, have proved fatal in the course of a very few hours to young infants." The practice of exhibiting anodynes to children is not new. Harris alludes to it two centuries since, and remarks that it swelled the dead, and rid those who had the care of infants of further trouble. Hoffman states that he had seen children laboring under epilepsy and stupor from the use of diacodium and other narcotics. The late Mr. Haden, in his excellent and popular work on the diseases of children, states, that one grain of Dover's powder, which contains but one-tenth of a grain of opium, proved fatal to an infant; and he mentions another case in which one-sixth of a grain caused sleep for two days; he relates a third case of a child who was destroyed by one dram of syrup of poppies; and he was called to a fourth case, in which half a drop of laudanum had narcotised a child affected with diarrhœa. He observes, in conclusion, that opium and all narcotics should be prescribed by medical practitioners only. I might quote many other writers in support of this opinion, that the greatest caution and skill are requisite in medical practitioners when prescribing opiates for infants. I shall now state the result of my own observation and experience. My testimony is entirely in attestation of the truth of the preceding statements. The greatest caution, skill, and judgment, are required in prescribing anodynes for infants. I have known a tea-spoonful of a mixture composed of one drop of laudanum and an ounce of simple syrup, narcotise a new-born infant. There is scarcely a week in which I have not observed infants under the influence of an over dose of some soothing syrup or other, at the dispensaries which I attend. Mothers usually deny, at first, having used any such remedy, but, when pressed, they confess it with fear and alarm. When an infant is stupified for six, twelve, or twenty-four hours, its breathing becomes laborious, there is a determination of blood to the head, or a predisposition to "water in the head," it cannot awake to take food, absorption goes on, and rapid emaciation, great debility, and death are the ordinary consequences. It has been long observed by medical practitioners that infants, dosed with anodynes, seldom thrive, are generally feeble, and are usually destroyed by some disease peculiar to them before the fifth year. The digestion is impaired and destroyed by a constant use of narcotics in infants and children, as well as in adults. Those in the habit of taking opium afford ample evidence of the truth of this position.

During the first month of infantile life, a mixture, composed of two table-spoonsful, that is, an ounce of simple syrup, and two drops of laudanum, or ten drops of syrup of poppies, may be given in the dose of a moderate sized tea-spoonful, every two or three hours, until the infant ceases to scream, or falls asleep. In either case the dose should not be repeated for some hours, unless pain or restlessness returns.

I have known cases in which four drops of syrup of poppies, given to a vigorous infant of five months old with some sugar and milk, induced sleep in less than a minute. About this age, infants suffer more or less from teething, their bowels are disordered, and their sleep is disturbed. These symptoms occur, in most cases from errors in diet and physical education, and require the use of anodynes, combined with carminatives. In such instances, the following

combination, or one very similar to it, is generally prescribed by obstetricians:—dill water, an ounce; calcined magnesia, a scruple; loaf sugar, three drams; oil of aniseseed, four or six drops; syrup of white poppies, half a dram; dose a tea-spoonful three or four times a day. If this should act as a sedative, and cause sleep, we may substitute two drops of the sedative solution of opium, or four drops of laudanum tincture of opium. The dose may be repeated until relief is obtained, or sleep be produced.

Anodynes are also useful when children are affected with troublesome frequent cough, unattended by wheezing, flushing of the face, and dependent upon irritation in the throat, caused by exposure to cold. In such cases we prescribe mucilage of acacia, or gum arabic, eight drams; syrup or oxymel of squills, one dram; compound tincture of opium, or paregoric, half a dram; sugar, or simple syrup, two drams and a half; a tea-spoonful may be given every hour, until it causes drowsiness, and then it is to be discontinued until this goes away. When the cough is very urgent, we may add one drop of hydrocyanic (prussic) acid to this mixture with advantage, as this is a powerful sedative, and possesses great power in controlling laborious or spasmodic respiration. I have repeatedly added two drops of this acid to the mixture in cases of inflammation of the lungs or their lining membrane (bronchitis) with the happiest results, after leeching, emetics, blistering, and warm bathing had failed. I remember a case to which I was called by my friend Mr. Hughes, of Holborn,—the infant of Mrs. B——, in which we used this quantity of hydrocyanic acid, and ordered a tea-spoonful of the mixture containing it every hour, until the breathing was relieved. I have employed this combination in a vast number of similar cases, and also in hooping-cough, with advantage. Great care is necessary to discontinue the medicine as soon as relief is obtained.

Anodynes are also beneficial in diarrhœa of infants. The following mixture is generally efficacious; but there are cases in which more powerful astringents are necessary:—chalk mixture, three ounces; syrup of poppies and aromatic confection, of each one dram; loaf sugar, two drams; oil of aniseseed, four or six drops; dose, a tea-spoonful, three or four times a day, or in bad cases, after each motion. In violent cases, in which there are ten, twenty, or thirty motions in one day, it will be necessary to add three drams of tincture of catechu, and one dram of extract of logwood to this mixture.

Emetics.—The emetics usually employed in diseases of children are, antimonial wine, ipecacuan or hippo wine, or tartarized antimony (tartar emetic), or powder of ipecacuan in water, in the proportion of one grain to the ounce of water or syrup. These medicines are contra-indicated when there is irritation in the stomach evinced by hiccup or vomiting; and in the bowels, indicated by diarrhœa, black, brown, white, green, or any colored motions, unless yellow. Antimonial emetics produce most irritation, and may readily induce inflammation, softening, or ulceration of the stomach, each of which will speedily end in death. Parents, especially among the lower classes of society, are too much in the habit of exhibiting emetics, and often do irreparable mischief. They never should employ them when medical advice can be obtained. Dr. Clarke has known a quarter of a grain of tartarized antimony excite vomiting and death of a child, which was previously in no danger. I have been told of a druggist, whose common fever powder for children is five or seven grains of tartarized antimony; he never weighs it, but guesses at it; and I need scarcely state, that any child who takes this quantity is poisoned, or rather murdered. It is melancholy to think that such ignorant men are allowed to prescribe and destroy human beings with impunity in the greatest nation on earth. Nevertheless, the fact is so.

It is also to be remembered, that, in cases of inflammation of the lungs in children, it is dangerous to urge tartarized antimony in proportionally large doses as in adults, on account of the liability of causing inflammation of the stomach. I shall read to you a letter from a former pupil of mine, who is now in Paris, giving the history of death, caused by repeated doses of tartarized antimony for inflammation of the lung, in a child of three years of age, which was written to me as corroborative of the validity of my opinion. Some late French writers, M. Trousseau, &c., have, however, used the oxide of antimony in cases of adults, with

invariable success, in similar cases, while others have as strongly condemned it, as inert and useless. M. Bouillaud observes in his clinical lecture, in April 1834, "the white oxide of antimony had been fairly tested, it did not produce vomiting or diarrhœa, and its effects were completely null."—(London Medical and Surgical Journal, No. 119, May 10, 1834, vol. 5, p. 473.)

The older practitioners ordered emetics much oftener than the moderns, and these very seldom employed them at all. The community, however, is still prejudiced in favor of these remedies, and it is therefore very desirable to point out their effects.

Dr. George Armstrong recommended ipecacuanha in almost every disease of children, while others advised antimonial wine as generally—both were in error. Antimonial medicines are still very much employed, in diseases of children and adults in this country; and it is the more necessary to inform the young practitioners of their comparative effects when injudiciously administered.

Aromatics.—The aromatics which are most generally used in the treatment of diseases of infants are, oils of aniseseed, carraways, cloves, peppermint, aromatic powder, cinnamon, and ginger powders, and aromatic confection. These stimulate the muscular coats of the stomach and bowels, expel flatulency, and according to the majority of writers, prevent purgatives from causing griping. The aromatic powder, ginger, and aromatic confection, are also combined with drastic or powerful purgatives, such as scammony, aloes, camboge, calomel, and elaterium, to prevent their griping effects. Some practitioners deny that they possess this power; but if any one of these will take a full dose of any of these medicines, with and without the addition of aromatics, and report that he has suffered equally from griping, I shall freely give up my position.

Aromatics and carminatives are much used in different countries, combined with aliments, drinks and medicines. The ancient Greeks, according to Sonini, gave them to their children very freely; and, in this country, we use condiments, spices, and aromatics with our food, drink, and medicines. I feel convinced that the milder aromatics ought to be combined with such medicines as require them when prescribed for children.

Absorbents or *Antacids.*—Harris, who had great experience in the diseases of children, was of opinion that nearly all proceeded from acidity in the stomach and bowels; and he recommended earthy substances, as chalk, magnesia, &c. to neutralize this, and to form a mild aperient. It is well known that a tea-spoonful of magnesia and a tea-spoonful of lemon, or, in some cases, of orange juice, will form a neutral compound which will act as an aperient on many delicate persons who suffer from acidity of the stomach or indigestion. This class of medicines are mere palliatives, unless when other treatment is employed. The principal medicines of this class ordered for children are, calcined magnesia, prepared chalk, chalk rubbed into a powder with mercury (hydrargyrum cum creta), carbonates of soda and potass saturated with lemon juice or tartaric acid, in the forms of effervescing draughts or soda powders; carbonate of ammonia, &c. Quicksilver or mercury is triturated with chalk into a bluish powder, and, when combined with small doses of rhubarb or aromatic powder, is, in proper doses, one of the most effective and safe medicines when the motions from the bowels are unhealthy, when a child is feverish, picks its nose, is peevish, refuses every kind of food, and desires cold water, or some other cold drink. When these symptoms are present the disease is called infantile remittent fever, worm fever, fever from teeth, and "water in the head," by most mothers. The abdomen is enlarged, and the mesenteric glands are often affected.

Under such circumstances, we generally succeed, in a few days, in removing the fever, and restoring the motions to a yellow, healthful color, by the combination just mentioned. The disease is caused by improper diet or by dentition. It is caused by improper diet, because most families allow their children, from one to five years of age, to dine at the same table with themselves, and partake of the same food, which is injurious, for the following reasons:—Children are gluttons; they never masticate animal food sufficiently, whether they have teeth or not; they bolt their food, the gastric fluid in the stomach cannot soften or chimify it, the con-

sequence is, that it passes partially changed into the first portion of the bowel (duodenum), the bile is now mixed with it, but does not dissolve all of it or reduce it into chyle; it irritates the surface of the bowel, and the lacteals or absorbent vessels which pass to the glands in the mesentery, and on the thoracic duct which conveys the chyle or nutriment to the heart to be mixed with the blood; as the repetition of food renews the irritation in the lining membrane of the stomach and intestines, in the lacteal and mesenteric glands; irritation, inflammation, or ulceration of the bowels is the result, attended by fever; or the mesenteric glands enlarged, obstruct the passage of the chyle to the heart, and general emaciation follows. Parents are surprised at the voracious appetites of children laboring under mesenteric diseases, and at the emaciated appearance of their limbs and body, while the abdomen is swollen. The explanation is this,—nature demands food, but this is not conveyed through the mesenteric glands to the heart, a new supply of blood is cut off, the absorbents of every part are in action, and every part, except the mesenteric glands, which are composed of absorbents, emaciates. The emaciation is extreme before death, the features shrink, the eyes become prominent, and the visage either resembles that of old age or assumes an unearthly appearance. This has led the vulgar to imagine that their children had been "overlooked, bewitched, or replaced by some supernatural being, or by the diseased offspring of others." The real nature of the disease in such cases is irritation, inflammation, or ulceration of a greater or less portion of the mucous or lining coat of the intestines, a disordered secretion of liver, and hence the depraved motions from the bowels. The best remedies are the hydrargyrum c. creta, or calomel in very small doses, combined with rhubarb, compound powder of chalk with opium, continued for ten or fifteen days successively, and then the judicious use of iodine both internally and externally will remove the enlargement of the mesenteric glands, as many of you can attest from ocular proof at the dispensaries which we attend together. The dose of the hydrargyrum c. creta, for an infant under a year old, is one or two grains combined with rhubarb, as already stated, night and morning. No medicine restores the bowels to a healthful state sooner than this, unless when the evacuations are black, and then calomel should be substituted for it in the preceding prescription.

Calcareous medicines, as lime water, the solution of the muriate of lime, &c. have been long exhibited in enlargements of the lymphatic system or glands, as in scrofula, rickets, &c. and these are now replaced by iodine and its preparations, which, when genuine, and judiciously administered, are astonishingly efficacious in every form of scrofula. The most ample attestations of the truth of this statement are daily afforded at St. John's Hospital and the Western Dispensary.

Saline Medicines.—The carbonate of soda, saturated with lemon-juice or tartaric acid, and sweetened, has successfully cured two children affected with purpura, after every other remedy had been tried at two public institutions in vain. I believe the neutral salts have great influence on the blood, though I cannot assent to the theory of Dr. Stevens.

Mr. Cameron, a naval surgeon, in his work on diet, lays claim to the priority of discovery as to the effects of saline medicines on the blood, and states that his patients who had been deprived of vegetables, who had become pale, and threatened with scurvy, acquired a florid or high complexion by the use of nitrate of potass or common nitre. I need scarcely observe that the neutral salts have been used in febrile and many other complaints from time immemorial. The world, however, is indebted to Sir Gilbert Blane, Bart., for the discovery of an effectual cure for sea-scurvy, to which purpura is so nearly allied. In cases of children predisposed to the latter disease, the use of ripe subacid fruits will be beneficial; but, in general, these should be sparingly allowed on account of the predisposition to ascescency, according to some, or irritation of the stomach and bowels, in the opinion of others in early life.

Blisters and Irritants.—I have stated on a former occasion that the skin of young infants and even of children, is extremely irritable and liable to be inflamed by the slightest external injury. A slight burn on the finger of a child may cause convulsions and death in a few hours. The bite of an insect—a gnat for example—on a young infant may excite inflammation in a few

minutes, and therefore we cannot be surprised that the irritation of a blister, a mustard fomentation or poultice, the antimonial ointment, or powerfully stimulating liniments, may rapidly induce violent inflammation in infants, and this has often been followed by mortification, sloughing, and death. The experienced part of the profession never allow a blister to remain on a young infant, or a child under five years of age, longer than three or four hours; in fact, they order it to be removed as soon as the skin is reddened. It is quite unnecessary to allow the blister to *rise*, as it is popularly termed. If any of the blistering plaster remains on the skin it should be always washed off with tepid water. I cannot agree with a recent writer on diseases of children, who advises the reddened and tender part to be covered with new flannel, to prevent the child taking cold. The irritation which would be produced by such a plan would be intolerable; and I cannot but express my surprise at such a recommendation. Some writers advise that a piece of fine muslin should be placed under the blister to prevent the absorption of the flies, and the strangury or pain in evacuating the urine which follows it. Others order powdered camphor to be sprinkled on the surface of the blister for the same purpose. Whenever a blister is applied to children, some mucilage of acacia or gum arabic—for example a quarter of a pint—ought to be mixed with the drink. I have repeatedly seen mortification, sloughing, and ulceration caused by blisters on different parts on children, when left applied for twenty-four hours, which is, unfortunately, the usual period.

Blisters have long appeared to me to be too slow in their action; and that inflammation in the head, chest or abdomen, might prove fatal, before they produced the desired effect. The object of a blister is to cause local or counter-irritation; and this can be done in a minute or two by rubbing the skin with warm oil of turpentine. When the skin is reddened by this remedy, it should be discontinued, as it would produce intense pain, but this can always be very speedily abated or removed by the constant application of cold water for a few minutes. The superior advantage of this remedy is, that its effect is sudden, and it does not induce strangury or painful micturition. In my own practice I have for six years ceased to order blisters, for the reasons I have assigned. My learned and experienced friend Dr. Copland, was the first to advise the application of turpentine, as a substitute for blistering, in the former series of the London Medical and Surgical Journal, the London Medical Repository, of which he was the editor. There is also a valuable paper in the Dublin Journal of Medical and Chemical Science, for March 1834, by Dr. Little, of Belfast, on the value of the application of warm turpentine in diseases of the lungs, hooping-cough, asthma, bronchitis, pulmonary consumption, &c., and in croup.

Mustard Poultices and Fomentations.—These are often applied to the feet and legs in cases of inflammation of the brain, lungs, or abdominal viscera, and should always be removed so soon as they excite pain. I have known a mustard fomentation excite pain in a child of two years of age in less than a minute, and if continued might induce convulsions, or be followed by its usual consequences when applied too long, inflammation, ulceration, or gangrene. I have known several cases of adults, in which mustard poultices were applied for twenty-four hours, when the patients were supposed to be dying, convalescence occurred, and also most painful ulceration of both legs as high as the calves.

I witnessed a case of typhus, in which mustard poultices were left on for thirty hours as the man's life was despaired of. He, however, convalesced; both legs mortified, and it was necessary to amputate both below the knees. Another case was that of a gentleman, who was attacked with erysipelatous inflammation of the scalp and delirium tremens. It was supposed by three physicians, who were also practical surgeons, that effusion into the brain had taken place, and under this impression, mustard poultices were applied to his feet and legs. He was declared to be moribund; when I exhibited his habitual stimulous, he convalesced and recovered. There are two similar cases of erysipelatous inflammation of the scalp, related by Sir Astley Cooper in his lectures on surgery, which were considered mortal, and which were cured by gin after the usual remedies failed. The mustard applications did not redden the skin. In six weeks after his convalescence, both his legs ulcerated, and he was confined to

his sofa for three months before the ulcers had healed. There is also caution required in using hartshorn and oil, and other stimulating liniments.

The antimonial, or tartar emetic ointment, is sometimes employed in diseases of children, but great caution is necessary as to its use. It causes an eruption of pustules, like smallpox, which are very painful. This remedy should never be applied over an ulcerated or blistered surface, as it excites a degree of pain which few can bear. This ointment should rarely be applied to children.

The medicines I have named are sufficient for the infantile medicine, with the addition of hartshorn or sal volatile, and olive oil. Anything else required may be had from the druggist.

Blood-letting—Leeches—Cupping—Dry-cupping.—The best rule that can be laid down on the abstraction of blood by bleeding from the arm, or opening the temporal artery or jugular vein, is to be guided by the effect produced, and not by the quantity of blood which is taken. It is an axiom that we should make a free orifice, which allows the blood to flow rapidly, gives the system a sudden shock, causes fainting or an approach to that condition which is desirable whenever venesection is necessary, and does all the good that can be expected, at the least loss of the vital fluid. It is known to most practitioners that the removal of six or eight ounces of blood from a large orifice will cause fainting, while the abstraction of ten times the quantity, from a small orifice, will not produce the same effect. It appears to me that the safest and best precept with regard to blood-letting is, to make a large orifice, and allow the blood to flow until the countenance changes, giddiness, or loss of vision is complained of, and then cease. As constitutions differ there can be no fixed rule, I imagine, as to the quantity of blood to be taken. The directions now given by the most scientific and experienced practitioners are, bleed from a free orifice to the approach of fainting. There are some of the old school, who order twenty or thirty ounces of blood to be drawn; a vein is freely opened, eight or ten ounces are abstracted, the patient faints, and the operator binds up his arm. I am disposed to think that most of you have repeatedly acted in this manner.

Venesection cannot be easily practised on young infants, on account of the smallness of their veins. but its necessity is efficiently obviated by leeches. New-born infants, when properly fed and preserved from the influence of cold, very seldom require leeches, unless when attacked with purulent ophthalmia. A leech to each eyelid will be sometimes required in this desperate disease, though a single leech applied to the chest in cases of catarrh or bronchitis, will afford the most decided relief. It is to be recollected that the skin is extremely vascular and irritable, and that the loss of blood from one leech-bite has frequently destroyed life. When the bleeding is excessive, the countenance becomes pale, the eye glassy, the forehead and extremities cold, the respiration difficult, and should fainting occur, it will be almost impossible to rouse animation or to preserve life. The usual means of arresting the bleeding are, the application of cold water, vinegar and water, agaric, compression, cauterization with caustic or a wire heated to redness. Leeches should be applied over a bony surface, so that efficient pressure may be made to stop the bleeding if necessary. It is wrong to leave any discretionary power to nurses, the practitioner should not leave until he has arrested the bleeding, as infants and children have frequently sunk from exhaustion; and there is at all times the greatest difficulty in restoring them. It is now generally agreed that leeches cause a determination of blood to the part on which they are applied, and also that in congestion of the brain they should be placed behind the ears, along the jugular veins, or to the neck near the roots of the hair, and not on the forehead, temples, or crown of the head, as is usually done.

Cupping.—This operation is rarely performed on children, on account of the vascularity and sensibility of the skin, though it has lately (1834) been very strongly recommended by Dr. Burne, at the Medical Society of London. He stated that he had repeatedly ordered it for children of all ages with the best success. It appeared to me to be pregnant with danger in cases of very young infants, and extremely likely to induce convulsions, or congestion of the brain or lungs, by the violent screaming which I should think it would excite. I have not tried

it, and therefore cannot speak from experience; but very extensive observation enables me to state, that dry-cupping has superseded the necessity of general and local bleeding in my practice in most of the diseases of children; and it is a remedy, even in cases of adults, which will generally supersede local bleeding in a great number of instances. It possesses this great advantage, that it requires no scarification, no loss of blood, and that we may apply as many glasses as the extent of surface over the affected part will admit. In cases of infantile diseases it is invaluable.

Dr. Blundell has arranged a table of the quantity of blood that may be taken at the following ages; but I cannot help thinking, that any fixed quantities are as objectionable as attempting to determine the exact doses of medicines. If constitutions were alike, and children of the same age equally vigorous and well developed, then we might go by fixed rules; but until then I should be guided by the effect produced, and not by the quantity abstracted. You will of course adopt whichever plan you think most reasonable and best.

During the first month an ounce may be taken; from the second to the fourth month, two ounces; from the fourth to the eighth month, from two to three ounces; from the eighth to the twelfth month, from three to four ounces; from the twelfth to the eighteenth month, from four to five ounces; from the second to the third year, from eight to ten ounces; and from the sixth year to the eighth, from eight to twelve ounces. These were the quantities as set forth in Dr. Blundell's Lectures in the Lancet for 1826; but it appears by Dr. Castle's edition of the Principles and Practice of Obstetricy, &c., by Dr. Blundell, just published, p. 832, "what quantity may be safely drawn at once must be determined by circumstances; but the following tabular statement of quantities of blood, which I have taken away myself at different ages, may perhaps be of some service as a guide:—

	oz. aver.
From a child of 2 months old, from	1 to 1½
4 months old	1½ to 2
8 months old	2 to 3
12 months old	3 to 4
18 months old	4 to 5
3 years old	8 to 10
6 years old	10 to 12

The quantities in this table are the same as in the former account, unless that in the latter there is no mention made of the quantity for an infant one month old.

Notwithstanding the authority of the justly celebrated obstetrician just quoted, for whom, in common with the cultivators of medical science in this and all countries, I entertain the highest respect, I feel bound to inform you that I act on the precept already mentioned—bleed from a free orifice, and be guided by the effect produced and not by the quantity taken.

When it is necessary to open a vein in children, a ligature is applied round the wrist or instep, the limb immersed in a basin of warm water for the purpose of congesting the part and rendering the veins more apparent. In all cases of children I would advise you to watch the countenance, and if you see it becoming pale or collapsed, as already described, stop the flow of blood, whether from a vein, by leeching, or cupping, should you employ this last operation.

FATAL EFFUSION OF BLOOD INTO THE PERICARDIUM.

By Dr. Carson, of Liverpool.

The following very interesting case we copy from the first number of the Liverpool Medical Journal—a new contemporary, which augurs well, if we may judge by the first specimen:—

"Mr. W., a gentleman about fifty-two years of age, of a tall and robust form, clear complexion, subject occasionally to dyspeptic affections, though of very regular and temperate habits; of an active disposition, though his occupation was sedentary and confining, had been for twelve months affected with considerable anxiety of mind, in consequence of the doubtful issue of

some building speculations. Towards the end of Lent, which he had rigidly observed according to the injunctions of the Catholic Church, on the 11th of March, a day exempted from the prohibitions respecting diet, he had eaten freely of beef-steaks with onion sauce. He was at that meal sparing as usual in the use of wine. On the evening of the following day, he was engaged in a fatiguing and rather anxious way, with the business of a club, of which he was treasurer. On his return from the club, about eleven o'clock at night, in company with two of his friends, when he had nearly reached his own house, he was seized with faintness and debility to such a degree, that without the assistance of the friends who accompanied him he would not have been able to have kept his feet. Soon after his arrival at his house, he was visited by Mr. Bromilow, his medical attendant. He described himself as faint and exhausted; complained of an obtuse heavy pain at the precordia, and was affected with flatulent eructations. His respiration was free, his pulse 70, and regular, though weak. He had no affection of the head, nor pain anywhere, except as described in the chest. His bowels had been opened that day. Mr. Bromilow ordered an antispasmodic draught; and left him with directions to take something warm, and go to bed. He took the draught, and a weak glass of brandy and water. At three o'clock he sent for Mr. B. again, and, as the pain in the chest was not abated, he expressed a wish to be bled, which Mr. B. agreed to, more with the hope of satisfying his mind than from any great necessity for that measure being indicated by the symptoms. He lost a pint of blood. An opiate was then administered. At this visit, Mr. B. examined the chest more minutely. He applied his ear to the different regions of the naked chest, but preceiving no unusual sound, or vibrations, concluded that the heart, lungs, and large vessels were in a sound state. After five o'clock, A. M. I visited him. He felt cold, perspired gently, and chiefly complained of a pain in the chest, which he described as wearisome and oppressive. It was not increased by taking a full inspiration. He had vomited a little in the course of the night, and had discharged some of the onion sauce he had taken the day preceding the attack. He was much troubled with flatulency, and belched frequently, but was not relieved by it so far as regarded the pain in the chest. His pulse was regular; the heat of the body natural; and respiration good. He had had no sleep.

From the information given by Mr. Bromilow, connected with my own observation, I considered that nothing could be indicated by the symptoms beyond an affection of the stomach, which is known to exhibit itself in such anomalous forms. He took four grains of calomel, and two of opium. We visited him again at half after eleven o'clock. He had had little sleep. The symptoms remained the same. He was ordered an aperient mixture, and we proposed to visit him again at seven o'clock. At this visit, I replied to the anxious inquiries of the family—that we did not see any cause for alarm; that the complaint seemed to arise from indigestion; and that I had no doubt he would recover. At three o'clock in the afternoon he sent for Mr. Bromilow, as the pain still continued unabated, and wished to know if he might have any thing to rub the part with. The bowels had not been opened, and he had had little or no sleep. A short time before seven o'clock, the hour at which we had proposed to visit him, and at which I was prevented from attendance by an urgent call to a distant part of the country, Mr. W. was seized with what the family conceived to be a fit; and a short time after the arrival of Mr. Bromilow, expired. In consequence of my unavoidable absence, other physicians were called in, and two arrived, but not until after the death of the patient. I applied for permission to open the body, which was granted. The body was examined twenty-four hours after death, by Mr. Bromilow in my presence, and in that of my son, Dr. Carson, jun. The following were the appearances on dissection:—Upon opening the chest, the lungs on both sides were perfectly sound and collapsed. But, notwithstanding the collapse, the chest was filled more than it usually is when the lungs are sound. This indicated the existence of some foreign substance or morbid enlargement of some of the organs. The pericardium was found accordingly to be immensely distended by some fluid, which, when this bag was opened, was found to be blood, partly liquid and partly coagulated: the quantity was not less than three pints. It was purely blood, without the admixture of any fluid indicating inflammatory action.

The external surface of the heart, and internal surface of the pericardium, were examined carefully, but no ruptured vessels, from which the blood might have flowed, were discoverable on either of these surfaces. The heart itself was perfectly sound, the valves were in good condition, and no disease existed in any of the large vessels. The lungs were free from adhesions, and were everywhere sound. The other viscera were in a sound state. A great deal of care and time was expended in trying to discover the source from which the blood had flowed into the pericardium, but in vain: a slight ecchymosis was observed about the root of the pulmonary artery. Dr. Baillie, in his *Morbid Anatomy*, says, "Cases have occurred, though very rarely, in which a large quantity of blood has been accumulated in the cavity of the pericardium, but where no rupture could be discovered after the most diligent search, either in the heart itself, or in any of its vessels. This appears very wonderful, and not at all what any person would expect *a priori*. Two conjectures have occurred to me, to explain this phenomenon: 1st, that the blood vessels on the surface of the heart have lost their compactness of tissue, so that the blood may have escaped by transudation. The other is, that the blood may have been poured out by the extremities of the small vessels, opening on the surface of that part chiefly of the pericardium forming the immediate cover of the heart, from their orifices having been to a very uncommon degree relaxed."

There is a case related by Dr. Alston, in the 6th volume of the Edinburgh Medical Essays, in which the disease of the chest was of long standing. Three pints of blood, which was partly coagulated and partly mixed with lymph, were found in the pericardium. No ruptured vessel was discovered either on the outer surface of the heart, or the inner surface of the pericardium. Upon pressing the heart, a bloody serum oozed out of a great many orifices on its surface, and principally near its base. No disease was discovered in the interior of the heart or large vessels. Dr. Baillie refers to two cases of extravasation of blood into the cavity of the pericardium, in which the source of the hemorrhage could not, after the most careful examination be discovered. In both these, functional disease of the heart had been observed for some time previous to the death of the patient.—*Vide Medical Observer*, vol. 10, p. 330.—*Memoirs of Medical Society*, vol. 1, p. 238.

Various opinions have been advanced respecting the sources from which, in the above cases, the blood was derived. One of the suppositions made by Dr. Baillie appears to me to approach the nearest to the truth, which is that the blood had oozed out of the small vessels on the internal surface of the pericardium immediately covering the heart. It is probable, I think, that the oozing, particularly in the case now narrated, arose from the condition of the blood, and the relaxed state of the fibres. It would appear that the disease was general, and that the shivering, faintness, and depression of spirits were not the effects of the flow of blood into the pericardium, but that this last was, like the affections stated, the effect or symptom of the general disease—that in fact there existed a morbid state of the whole system, similar to that which takes place in purpura, in some kinds of epistaxis, hematemesis, and in bleeding from the bowels in typhus fever. The pain in the chest was in the first place occasioned by the admission of blood into a cavity not accustomed to the stimulus of that fluid. There is no reason to suppose that the action of the heart would be mechanically affected until the quantity of the blood was pretty considerable; for the blood would readily follow the dilatation of the pericardium, occasioned by the elasticity of the lungs, when the chambers of the heart had finished their contractions. No sound was perceived, on carefully examining the chest. Indeed no sound could be excited, as no fluid was poured from one vessel into another. For as the auricles expand as the ventricles contract, the change of place in the constituents of the fluid in the pericardium would be inconsiderable, and made with quietness.

There does not appear to be any symptom in this case that would have warranted the medical attendants in giving an unfavorable prognosis. As a matter of prudence, a less favorable one might have been made, but the same prudence would not permit the expression of a favorable prognosis in any case whatever."

CONCISE ACCOUNT OF THE COMPOSITION OF THE PONTINE MARSHES.

By Dr. Weatherhead.

"The volume of water which escapes from under the lime-stone mountains of the Apennines, is truly astonishing. The principal drains run on each side of the road, and more resemble wide canals than drains in the ordinary acceptation of the word. They are so well leveled that the stream of water cannot stagnate, but runs freely away. With the object of ascertaining the nature of the soil of these celebrated marshes, I made excursions to the right and left of the road, where the water allowed me; and the result of my observations surprised me a good deal. The soil in most places is exceedingly superficial, often not deeper than two or three inches; and below this there is a foundation of solid stone. This last is a calcareous deposition from the waters flowing from under the mountains, and is precisely similar to the travertine found and formed in the neighborhood of Tivoli. This sediment encases, and in time petrifies the reeds and other tubular vegetables that grow in the soil, thus forming congeries of interrupted conduits for the lodgment of water. It is to this peculiarity of formation that the miasmata of the Pontine Marshes, in great part, owe their origin; but while there is no denying its pernicious influence to a certain extent, the degree of alarm this excites appears to me one of those common errors perpetuated by idle repetition, unconfirmed by personal investigation, and unreasonably exaggerated by the fears of the pusillanimous. In my way I passed above forty laborers at work, widening one of the drains; and, as far as I could judge by appearances, they all seemed robust and healthy, working with vigor under a scorching sun, and half up to their knees in water. Habit, it is true, is nature's lieutenant, and we see elsewhere indigenæ thrive in a climate which is almost certainly fatal to a stranger not inured to it. Late in the evening I arrived at Terracina, where a comfortable bed and supper wore off the fatigue of the preceding day's march."

To Dr. Weatherhead's account of the composition of the Pontine Fens we do not demur; but we cannot say that the aspect of the inhabitants made the same impression on us that it did on our pedestrian traveler. The workmen in these morasses are mostly convicts, and those which our author saw may have been a fresh batch from the papal prisons or the mountains. But we venture to say, that no people would long retain the semblance of health in such localities.

The following is the doctor's explanation of the cause of the malaria which affect the Eternal City:—

"Walking on the Monte Pincio one day, I perceived thin and variously composed strata of volcanic dust, developed by the partial cutting away of the hill for the path which ranges on its height; and on examining it in different places, I found it to be entirely formed of a mound of the same volcanic material. It is of a blueish color, speckled with white spots, perfectly calcined, and possesses a strong attraction for humidity. Some that I got several months ago is even now more damp than when taken from the hill, though repeatedly dried by the sun as carried about in my knapsack. This property of the soil of Rome is, in my opinion, the chief source of the malaria, so fatal in its effects here at certain seasons of the year. Its line of distribution marks the limit of its operation, and this circumstance will explain how one side of a street should be notoriously unhealthy, and the other free of any noxious influence. The most heedless observer must frequently have witnessed how speedily the roads in the neighborhood of Rome, dry after even great torrents of rain. He mistakes much if he thinks this proceeds from evaporation: for the heat of the sun, even in the hottest summer months, could dissipate but little in so short a space of time: it is absorbed by the thirsty nature of the soil; and he may convince himself of the fact, by remarking how permanently moist this is all the year round a few inches under the surface. Heat and moisture, we all know, vivify and disengage the fomites of disease. no wonder, then, that these, acting on the debris of animal and vegetable matter in a state of decomposition, buried for ages and daily gaining fresh accumulations, should generate pestilential effluvia, and by contaminating the atmosphere of Rome during summer, produce fevers of so fatal a type.

This pernicious condition of the soil is not confined to Rome (six out of seven of the hills on which it stands I ascertained to be volcanic), but extends as far as the deliquescent earth (its peculiar matrix) itself does: and hence the unhealthiness of the whole of the Campagna. Circumstances certainly modify its degree of intensity; but I think facts will bear me out in circumscribing the sphere of the operation of malaria to the demarcation made by the line of its extent. The Pontine Marshes, again, owe any peculiar unhealthiness they possess to another kind of formation, of which I shall speak hereafter."

Dr. Weatherhead's theory does not account for the varying position of the malarious portions of Rome. It is well known that the unhealthy topography changes, and that malaria has, for many years past, been progressing from the eastward to the westward. It cannot be supposed that the soil itself has changed—and we must therefore come to the conclusion that some subterranean agent is at work which causes emanation of mephitic miasmata from the surface of the earth, while the primary cause is far from our ken.

We cordially agree with Dr. W. however, in the following sentiments:—

"The air of Rome is heavy and unwholesome, especially for invalids requiring a strict regimen and great care; and perhaps it would be advisable, on more accounts than one, to have regard to the ordonnances which the stranger will read in the church of Minerva.

With regard to the fitness of the climate as a residence for the pulmonary invalid, I cannot agree in those unqualified commendations which some have bestowed upon it. The air, as I have said, is heavy and moist, and certainly there are some whose lungs such a temperament of atmosphere may suit; but this I think is certain, that if it prove not beneficial, the trial cannot be made with impunity; and no physician, if honest in his opinion, can say, *a priori*, whether it will prove so or not. In spring, again, and even in summer, a cold wind blows at times from the Apennines, which suddenly chills the air. This is an observation of Pliny's. My conviction is, that many a consumptive patient, who might have leisurely walked to the grave elsewhere, gallops to his goal at Rome: his languor increases under the depressing influence of so moist and relaxing an atmosphere; his nocturnal perspirations become more profuse and colliquative; his expectoration more exhaustingly copious; a quickened circulation fans the inflammatory combustion, and a keener hectic feeds on the vital principle until it is consumed, when death, closing the scene, bears away the last sigh, fraught with regret for having ever left home."

On the appearance of Dr. Turnbull's work on *The Medicinal Effects resulting from the External Application of Veratria*, we confess that the wonderful, we would almost say miraculous, cures which were recorded by the author, induced us to view the work with suspicion. We therefore put it aside, with a determination not to notice it until we could either, from our own observation, or from the observation of others, ascertain what confidence was to be placed in the employment of the *veratria*, as a remedial agent. Dr. Johnston having, in the July number of his Journal, furnished us with the results of his experience of the use of the remedy in some cases of *neuralgia*, and these being strongly confirmatory of the statements of Dr. Turnbull, we take the earliest opportunity of bringing the subject under the attention of the profession; and we conceive we cannot better do so, than by the publication of the small work of Dr. Turnbull's, which costs $1 50, but which we are enabled to furnish to our subscribers for a mere trifle—the result of the editor's experience contained in the July number of the same Journal, which we publish below.

When we doubted the correctness of Dr. Turnbull's statements, we consider it due to him and to ourselves, to state that we had no suspicion that he was willfully disposed to make misstatements. We considered him only as being too enthusiastic; and, from this cause, disposed to attribute the cures to veratria when it was due to other remedies. We still think that experience will not confirm all he teaches as to the remedial operation of this new medicine, but the results of Dr. Johnston's practice in cases of neuralgia should, we conceive, lead

physicians to give the veratria a fair trial in all the cases for the cure of which it has been recommended by Dr. Turnbull.—Ed.

DR. TURNBULL AND VERATRIA.

In our last number, we expressed a hope that the experience of others might confirm that of the author, promising at the same time that we should communicate the results of our own trials. It is unnecessary to assure our readers that on this, as on every other subject of professional inquiry, our minds have not been biassed either by prejudice or partiality. Truth and justice are ever the only guides of our conduct.

In two cases of facial neuralgia affecting the infra-orbital nerves, and which had continued, with varying severity, for three and seven years respectively, the use of the strong veratria ointment has been followed with speedy and decided relief; the paroxysms being rendered not only of much shorter duration, but also less agonizing and of less frequent recurrence. One of the patients, a carpenter, about sixty years of age, had been for nearly two years so afflicted, that he was quite incapable of following his work during almost the whole of that time; every alteration in the state of the weather, however trifling, inducing a fit of pain. After a week's employment of the ointment his condition was greatly improved, and along with the comparative ease which he enjoyed during the day, he began to sleep quietly at night; a comfort of which he had been nearly quite deprived.

The second case, occurring in a countryman, of between sixty and seventy years of age, was as satisfactory as the preceding. Both patients are indeed still subject to returns of the enemy's attack; but so confident are they of having him under their power (by rubbing the affected parts with the ointment until its full effects are produced) that they always carry a box of it in their pockets wherever they go.

We have seen a third case of painful affection of some of the twigs of the infra-orbital nerve, in a middle-aged lady. It had resisted a great variety of treatment, but has now yielded almost entirely to the use of the veratria. From the circumstance however of this patient being of an extremely nervous and delicate constitution, as well as from the other features of the case, we were inclined to regard the facial pain, rather as one symptom of hysterical disease, than as a specimen of genuine or idiopathic neuralgia. Nevertheless we must confess that it had tortured her for a length of time, and that the relief which she now enjoys is truly great.

The fourth case was one of rheumatic neuralgia, affecting the lower extremities. The disease had originated about twenty years ago, from exposure to cold and damp; and the patient, a clergyman, had tried a host of remedies, prescribed by many of the most eminent medical men of this metropolis, with very little advantage. The nerves chiefly involved, appear to be the superficial branches of the anterior crural and fibular trunks. The results of his experience of the veratria ointment are, that whenever he is able to induce its peculiar effect upon the parts, the pain begins to abate, and then gradually subsides. He is also of opinion, that the recurrence of the paroxysms has not been so frequent.

The fifth case was in some respects similar to the preceding one, but much more severe. The trunk of the sciatic and the branches of the gluteal are chiefly affected.

Frictions with strong veratria ointment (℈ij. to the ℥j.) were repeatedly tried, but without any avail; the sense of burning or tingling could not be induced. Under these circumstances Dr. T. says, that we have no reason to expect any benefit. Whoever therefore gives a trial to his remedy ought carefully to attend to the test which he has pointed out as indicative of the operation of the drug. Three cases of heart affection, in which Dr. Turnbull thinks the veratria has been of decided advantage, have been submitted to our inspection; but the data which have hitherto been furnished, are as yet quite insufficient to warrant us in affixing the stamp of our testimony to the correctness of his opinion. The patients indeed confessed that the cardiac distress was always relieved whenever the effects of the veratria were induced. We willingly give credit to this; because we are satisfied that the medicine exerts a very peculiar effect as

a counter-irritant; and it seems to differ from almost all others in this respect, that its operation is confined solely to the nerves of the part, the blood-vessels being scarcely affected.

It is therefore our decided opinion that veratria is a useful and very potent medicine in certain nervous affections, and that it deserves to be, and no doubt will become an established member of the Materia Medica. Few, perhaps, can hope to obtain such wonder-working results as Dr. T. has had the good luck to achieve. Parents are naturally over-fond of their offspring!

As sincere friends of the profession, we deprecate alike the extremes of indiscriminate applause and of incredulous condemnation.

In addition to the evidence furnished by the above extract, in favor of the veratria, Dr. Dickson, Physician to the Plymouth hospital, in a letter, states that he has lately been making trial of the veratria, and observes, *in some cases it seems to have great power, in others none.*

Dr. Lane read lately, in the Liverpool Medical Society, a paper on "Hypertrophy of the Mamma," and related a case which he had successfully treated by iodine, ergot of rye, and mercury. In the case alluded to, there was total suppression of the menses: the patient had her mouth made sore by mercury; the iodine was given till her throat became affected; the ergot of rye given in ℈ss. doses, thrice daily for thirteen days, when there was a slight discharge, lasting for a few hours. The ergot continued three weeks, with the result of another discharge, of nearly a day's continuance, after which, up to this date, the patient had a periodical recurrence of the catamenial issue. Her breasts, too, now were reduced more than one half their original size.

23d Dec. Dr. Lane in the chair. In the same society, Mr. Neill read a paper in which he related several cases of disease of the retina, with double vision; and in which *strychnine*, both externally and internally, had produced beneficial effects. One case was remarkable for having the double image presented to the diseased eye, even when the healthy eye was closed: this case was accompanied with a rushing sound in the ears, relieved by strychnine, of which four grains were taken in eight days. The diplopia was likewise benefited by the treatment. The accidental death of the patient (from a weight falling upon his head) prevented the final result being ascertained. Mr. N. laid it down as an invariable rule that the strychnine would do no good unless the IRIS retained *some* degree of mobility.

The following very remarkable case of a foreign body found in the heart of a boy, by T. Davis, Esq. of Upton-upon-Severn, is published in the 2d vol. of the Trans. of the Provincial Med. and Surg. Association:—

We do not know that we can usefully abridge the following particulars:

"On Saturday evening, January the 19th, 1833, I was summoned to attend Wm. Mills, aged ten, living at Boughton, two miles from Upton. When I arrived, his parents informed me that their son had shot himself with a gun made out of the handle of a telescope toasting-fork. To form the breach of the gun, he had driven a plug of wood, about three inches in length, into the handle of the fork. The touch-hole of the gun was made after the charge of powder had been deposited in the hollow part of the handle. The consequence was, that when the gunpowder exploded it forced the artificial breach, or piece of stick, from the barrel part of the gun with such violence, that it entered the thorax of the boy on the right side between the third and fourth ribs, and disappeared. Immediately after the accident, the boy walked home, a distance of about forty yards.

By the time I saw him, he had lost a considerable quantity of blood, and appeared very faint; when I turned him on his right side, a stream of venous blood issued from the orifice, through which the stick entered the thorax. Several hours elapsed before any degree of reaction took place. He complained of no pain.

For the first ten days or a fortnight after the accident, he appeared to be recovering, and once during that time walked into his garden and back, a distance of about eighty yards; and whilst there he amused himself with his flowers, and even stirred the mould. He always said he was well, and was often cheerful, and even merry. There was no peculiar expression of countenance, excepting that his eyes were rather too bright.

After the first fortnight he visibly emaciated, and had frequent rigors, which were always followed by faintness. The pulse was very quick. There was no cough, nor spitting of blood. The secretions were healthy. He had no pain throughout his illness."

He died on the 25th of February, five weeks and two days after the occurrence of the accident.

Dissection.—On opening the thorax, a small cicatrix was visible between the cartilages of the third and fourth ribs, on the right side, about half an inch from the sternum.

The lungs appeared healthy, with the exception of a small tubercle at the right, and at its root, near to the pulmonary artery, a small blue mark in the cellular tissue, corresponding in size with the cicatrix on the parietes of the chest.

Half an ounce of serum was contained in the pericardium.

"When an incision was made into the heart so as to expose the right auricle and ventricle, we were astonished to find, lodged in that ventricle, the stick which the boy had used as the breach of the gun, the one end of it pressing against the extreme part of the ventricle, near the apex of the heart, and forcing itself between the *columnæ carneæ* and the internal surface of the heart; the other end resting upon the auriculo-ventricular valve, and tearing part of its delicate structure, and being itself encrusted with a thick coagulum, as large as a walnut.

We searched in vain for any wound, either in the heart itself or in the pericardium, by which the stick could have found its way into the ventricle."

Mr. Davis seemed puzzled to imagine how the stick got into the ventricle. He supposes that it entered the vena cava, and was carried with the blood into the right side of the heart. The stick would appear to have been about two inches and three quarters in length. There are, therefore, obvious physical difficulties in the way of its getting from the vena cava to the auricle. We know of no better mode of accounting for the fact; and we leave the explanation to such of our readers as can find one.

We agree with the editor of the Medico-Chir. Review, "that a better mode of accounting for the fact cannot be furnished." Were the case not derived from so respectable a source, we should consider it incredible.

VACCINATION IN ITALY.

Dr. Festler has published in the January number of the Annali Universali, an instructive report on the variolous epidemic which prevailed last year in the district of Albignasego, of which he was medical superintendant. It is most gratifying to observe, that the physicians of all the countries which have hitherto adopted vaccination, are unanimous in the judgment which they have formed of the striking advantages of this great boon: admitting, indeed, that it is not invariably a secure defence against the inroads of small-pox, they are forced by the love of truth to proclaim, that few, very few of those who have been properly vaccinated, are susceptible of the infection of the variolous poison; and that moreover (a most important fact) in such as have caught the disease after vaccination, it is almost always mild and easily tractable.

The testimony of Dr. Festler cannot possibly be gainsayed; not one of his vaccinated patients died, and with the exception of a single case, the symptoms were those rather of a varicellous or of varioloid affection, than of genuine small-pox. Not a few who caught the disease in the natural way fell victims to it. It is a circumstance worthy of mention, that the first case of all, at least as far as Dr. F. could ascertain, occurred in a female who had been vaccinated when young: in her it was varioloid, but as several living in the same house had

never been subjected to the cow-pox, they were seized with the actual variola, and as we have said, many died. It appears unnecessary to trace the details of individual cases; the general results only it is of consequence to make known; and first with regard to the different forms which the disease put on, when it attacked those who had been previously vaccinated. They may be reduced to three; viz. varicella, varioloid, and lastly the genuine variola. We shall say a few words on each.

1. *Varicella.*—The smallest number of cases, and these too were of the mildest form, occurred in the youngest patients, or in those who most recently had been vaccinated. After a slight pyrexia of one, two, or three days' standing, a few red spots, interspersed with small tubercles of the natural color of the skin, made their appearance on different parts of the body; the feverish symptoms thereon ceased; the spots became vesicles or pustules, and these dried away almost as soon as formed; the tubercles on the other hand seemed like abortive variolous papulæ, and continued for a few days longer, and then gradually scaled off; the exfoliation affecting only the cuticle. In eight, or ten days at most, from the invasion of the disease, the patients were quite well.

2. *The Varioloid*—affected chiefly those above fifteen years of age or thereabouts; not but that many at and above this period of life exhibited nothing but the mild varicella; all that we intend to say, is, that very few cases of varioloid occurred in those who were younger. As we have already stated, the younger the patients the less susceptible were they of the infection, and the milder generally was the disease. The greater number therefore of the cases were of the varioloid type. The eruptive fever was more severe, and was frequently accompanied with some irritation in the throat and trachea, as in coryza and slight bronchitis. On the third, fourth, or fifth day, a rash, like that of measles or of scarlatina, appeared; this was soon succeeded by distinct papulæ, or tubercles, which in a day or two became vesicular; the lymph of these vesicles, at first clear and like water, gradually thickened and assumed a yellowish color; some of them remained pointed, others became flat, or depressed in the centre; the former contained least lymph, and, upon drying, they left behind the colorless tubercles, which we alluded to when speaking of varicella.

The usual period of the desiccation of the pustules was from the eleventh to the fourteenth day, counting from the commencement of the disease. Sometimes, although rarely, a few pustules on the face or chest remained longer, suppurating slowly, but not attended with any febrile re-action. On the eighteenth day, almost all the patients had quite recovered; no pits were left behind, only some faintly-red spots or blotches. The eruption of the varioloid was never distinctly or generally confluent—the color of the crusts or scabs was an ashen or dirty-yellow color; when once thrown off, they were never renewed.

3. *Variola.*—Only one case of genuine small-pox, after vaccination, occurred; and, although, severe, the patient ultimately did well. In it the third stage, or that of the maturation of the pustules, was well marked; the pyrexia never ceased entirely, and was followed by a regular secondary fever, which continued until the end of the third week.

These three forms of eruptive disease we consider to be produced by the same poison, acting on differently disposed constitutions; each is capable of propagating either of the three forms, so that from a mild varicella, a person may be infected with a severe variola, and, on the other hand, the worst form of small-pox may communicate only a slight cow-pox; all depends on the susceptibility of the individual exposed, and the susceptibility appears to be proportionate to the interval between the vaccination and the exposure to the infection.

Is not, therefore, the line of conduct which ought to be pursued obvious to all? Whenever a case, whether of varicella, varioloid, or variola occurs, the patient, and every inmate of the same dwelling, should be confined to their house, and prevented, under a severe penalty, from associating with others. It is only by such a rigorous and wholesome enactment that we can hope to crush this many-headed monster. At the same time, vaccination ought to be authoritatively, unconditionally, and exclusively promoted by all governments.

On the subject of *re-vaccination*, Dr. Festler states that he has himself re-vaccinated upwards

of fifty persons, of different ages, from two to thirty-two years. Of these, not above twenty were affected specifically with the virus. Indeed, the phenomena varied so considerably in different individuals, that we may conveniently arrange them in three classes, corresponding somewhat with the threefold division of varicella, varioloid, and variola.—1, Some resisted the operation of the poison altogether, and the punctures on the arm were not more inflamed than if they had been made with a clean lancet; two-thirds of the whole number, as we have just now stated, belonged to this class. 2, In others, the punctures were more inflamed, and on the fourth day or so, a pointed tubercle or small boil appeared on each—the suppuration was quite superficial, and, on the fifth or sixth day, had dried to a rough scab or crust, accompanied with much troublesome itching; in two or three more, the crust fell off without leaving any scar. 3, And, in a third class, the development and progess of the tubercle resembled more nearly but by no means regularly or perfectly, the maturation and decay of the genuine vaccine pustule. The suppuration did not affect the subjacent cellular texture—the red areola was more circumscribed, and of a paler color; the pustule was visibly umbilicated, the crust did not exhibit the concentric striæ and circles, it fell off sooner, and the cicatrix was not dotted as after genuine vaccination, but was rather like to the scar of a slight burn or scald. This form may, therefore, be compared with the eruption of the varioloid; the specific action of the virus does not penetrate deeper than the cuticle, whereas, in the true variolous and vaccine pustules, the subcutaneous and cellular texture are equally involved.

In order to satisfy himself that the matter of the imperfect pustule of a re-vaccinated person has all the specific agency of genuine cow-pox, Dr. Festler inserted some into the arms of infants who had never been vaccinated, and the consequence was, that perfect and complete vaccine pustules were induced; so that it is quite apparent that the modified effects, in the first instance, depended upon the state of the constitution of the individual, and not upon the quality of the virus. Dr. Festler repeated the operation a third time in the case of his own wife, and the pustule which, on the former occasion, belonged to the third division above described, was now more irregular and imperfect, as in the second division. The susceptibility has, therefore, he thinks, become less and less, although it may still exist in a small degree. Neither Madame, nor any other of his re-vaccinated patients, suffered at all from the variolous epidemic, although frequently exposed to its immediate influence.—*Annali Universali, Jan.* 1833.—[Medico Chir. Review.]

CLINICAL RESEARCHES ON THE MEDICINAL EFFECTS OF DIGITALIS.

The reports of medical men on the powers and properties of this potent drug, have been strangely conflicting and inconsistent with each other. Cullen affirmed that the direct physiological operation of foxglove is to weaken and retard the action of the heart and arteries; Dr. Sanders has on the other hand maintained that it first quickens the pulse; and lastly, Orfila and others have not obtained any steady or uniform results, either the one way or the other. Equally discordant have been the statements of different authors respecting the therapeutic effects of digitalis. If we are to believe Drs. Bidault and Currie, it is of great efficacy in all inflammatory diseases;—Clutterbuck considered it as the only specific against fever;—asthma and epilepsy have been said to be under its immediate control; Darwin, Fowler, and Beddoes, would lead us to suppose that it is able to cure hemoptysis and even phthisis, and Hufeland has pompously eulogized it as the most heroic of all anti-scrofulous remedies!! That it possesses beneficial powers in quickening the action of the absorbents, and in increasing the flow of urine in certain cases of dropsy, will be disputed by few; but that it has cured encysted dropsies of the ovarium must surely be the mere fantasy of a fond admirer.

The following researches were instituted, and very carefully pursued, for the purpose of arriving if possible at some satisfactory conclusions respecting the physiological and therapeutic effects of digitalis. It was exhibited sometimes in the form of powder recently prepared, and possessing all the aromatic qualities of the fresh herb; at other times, of a watery or alcoholic

extract; and lastly of infusion. The extracts were obtained in the following manner, according to the directions of Professor Soubeiran, the director of the central pharmacy of hospitals. The juice of the fresh herb, procured by expression, was gently heated, for the purpose of coagulating the vegetable albumen; it was then filtered, and evaporated in a water bath to a proper consistence. The alcoholic extract was obtained by slowly evaporating a concentrated tincture of the leaves.

It may be mentioned that most of the following cases have been derived from the clinique of Professor Andral; at the Hopital de la Pitie.

EXPERIMENTS WITH THE POWDER.

CASE 1.—*Hypertrophy and Dilatation of the Heart—18 grains of Digitalis in six days.*—March 24th.—A woman, aged sixty, was admitted with the following symptoms:—Impulsions of the heart very strong; upon any effort of the breathing as in coughing, blowing the nose, &c. they become so violent, that they caused her to faint away, and the extremities to become cold and benumbed. The pulse is 68; the number of respirations in the minute only 14. She suffers much from headache, noises in the ears, confusion of sight, with a pricking sensation in the eyes, pain in the region of the kidneys, and general anasarca of the lower limbs. These symptoms are of three months' duration; but it is nearly a twelvemonth since she had an attack of severe dyspnœa, from which period she dates the commencement of her illness. She was ordered four grains of digitalis to be taken in the course of the day.

25th. Pulse 92—*Respirations* 38—*8 grains of digitalis ordered.*—This quantity was continued every day until the 30th without any very appreciable results on the circulatory and digestive functions. The medicine was then discontinued, and the patient kept upon a light emolient diet. On the 4th of April she was seized with almost constant fits of fainting, and with distressing anxiety. Pulse 96, and the palpitations stronger than ever Respirations 36. A more decided antiphlogistic regimen was now adopted, but with little relief to the symptoms.

Remarks.—No very striking effects were produced on any of the functions in this case. The pulsations of the heart were little influenced; the urine was not affected at all.

CASE 2.—*Hypertrophy of the Heart—60 grains taken in six days.*—A shoemaker, fifty nine years of age, had suffered much from headache, confusion of sight, and buzzing noises in the ears. He has had frequent attacks of violent palpitations of the heart. Pulse 74, resp. 44.

A small bleeding was practised; the blood was not inflamed, but the action of the heart was somewhat reduced, the number of pulsations being then only 64, and of the respirations 22.

He was ordered three grains of the digitalis, and this dose was increased to six, and then to 12 grains, on the two following days; no perceptible effects were produced. Sixteen grains were prescribed; the pulse fell four beats, and the palpitations were less violent. On the following day, a scruple divided into five doses, was taken. The patient vomited his food, and experienced a good deal of nausea; but these symptoms ceased during the evening. Pulse 64. The dose was, however, diminished to 12 grains. During the course of the day, he vomited twice and complained somewhat of vertigo. The pulse was 60, and the number of respirations 28.

Remarks.—This case illustrates the occasional total inefficacy of digitalis in relieving the symptoms of cardiac disease. It was on the fourth day of the treatment that any perceptible change on the circulation was first observed, and then this change was very inconsiderable.

CASE 3.—*Asthma—Pulmonary Tubercles—3 drams and 26 grains in twelve days.*—A mechanic, aged thirty-three, was admitted into the La Pitie hospital on the 15th March, 1833. He complained of a sharp, teasing pain in the region of the sternum, especially when he coughed, or in any way exerted his lungs. On both sides of the chest behind, a sibilous and sonorous rale could be heard; in front, the respiratory murmur was pure, and percussion elicited a healthy sound. The breathing was sometimes exceedingly distressed, and the expectoration of mucus, tinged with streaks of blood, copious. Pulse 96—respiration 28. This patient had experienced several attacks of hemoptysis, and had for many years been subject to winter

coughs. He was bled, and the pulse fell to 68. One grain of powdered digitalis was ordered, and, on the following day, the dose was increased to four grains; the pulse had fallen to 52, but now was 60. Twelve grains ordered. Pulse 46—breathing more free, and also more pure on auscultation. Sixteen grains ordered; pulse 41—respiration 16. Twenty grains ordered; pulse 40. On the following three days, the dose of the foxglove was reduced to 16 grains.

There had been occasionally vomiting and considerable nausea; but these symptoms were by no means constant. The tongue presented a natural appearance, and the cerebral functions were undisturbed; the pulse remained at about 40. As the symptoms gradually subsided, the dose of the medicine was again raised to a scruple per diem, and, on the following day, to 30 grains; the patient vomited twice in the course of the night—pulse 40, somewhat irregular in its action. Thirty-six grains ordered; nausea during the whole of the day—pulse 37—respiration 13—cough and expectoration much less. Forty-eight grains ordered; vomiting returned—bowels relaxed—pulse 42, irregular as before. The use of the digitalis was now suspended; the nausea, however, and vomitings contined to recur, the pulse remained at 40, and the respiration at 15—tongue natural—cough quite gone, and the patient left the hospital on the 5th of April, much relieved.

Remarks.—It will have been observed that, in this patient, the pulse fell on second day of the treatment, when the dose of the digitalis was only two grains; the bowels were then somewhat relaxed, but this relaxation did not increase with the increase of the dose. The stomach began to be disturbed with nausea and vomitings; the pulse fell below forty, and, at the same time, the cough and expectoration abated. These symptoms continued, with little variation, till the completion of the cure. During the whole period, the condition of the tongue remained unaffected, and there never was any epigastric tenderness. Neither the salivary nor urinary secretions were affected.

Case 4.—*Rheumatism—Hypertrophy of the Heart—37 grains in four days.*—The patient, a servant, eighteen years of age, had for five years, during the winter months, been troubled with attacks of general rheumatism, and each attack was usually followed by palpitations of the heart. The breathing was always more or less short and distressed; pulse 120, thready —respirations 32—dyspnœa almost constant—the action of the heart sometimes very violent —the dull sound in the cardiac region more extended than natural, and the impulsions of the heart might be heard over every part of the thorax. An incipient bruit de soufflet perceptible; a subcrepitant rale heard on both sides behind.

The patient was bled, and the blood exhibited a partial buffy crust; symptoms not affected —4 grains of digitalis ordered. Although the dose was raised first to 9 and then to 12 grains, the action of the heart was not at all abated, and the urinary secretion not increased— indeed, during these two days, a dropsical effusion into the cellular membrane had taken place. The patient was, therefore, bled again, and the blood now presented a stronger crust than before; the digitalis was discontinued. On the following day, there were frequent vomitings and almost constant nausea, and the pulse had fallen to 68, and had become irregular—the respirations were 34. By rest and quiet for a few days, this patient was enabled to leave the hospital.

Remarks.—The interesting feature of this case is, that the digitalis seemed to be almost quite inert until the second bleeding, when what are deemed its specific effects were first developed.

Our limits prevent us from detailing the particulars of the other cases in which the powdered digitalis was exhibited; we shall, therefore, merely mention their leading features.

In a man, thirty-eight years of age, who had long labored under pulmonary emphysema, and, at the period of his admission into the hospital was suffering from acute bronchitis, accompained with some symptoms of an affection of the heart, venesection and active purgation were employed with decided advantage, the pulse having fallen from 96 to 68. Eight grains of the foxglove were now ordered, and this dose raised, on the following days, to 12, 20, and 25 grains, with the effect of lowering the pulse to 56. Half a dram was then prescribed, but, as vomitings and nausea supervened, the dose was reduced to 16 grains. Next day the pulse had

risen to 72; the quantity of urine was not increased, and, as the head was somewhat confused, the use of the drug was discontinued. On the day after, the pulse fell to 52, and the number of respirations from 24 to 16. This state of amendment continued for several days, and, when the patient left the hospital, the pulse was slow, and the palpitations less violent.

In a case of phthisis, in a state of cavernous ulceration, the digitalis was administered in doses of 6, 12, 16, and 20 grains, on the four days preceding the death of the patient; the pulse, which was at first 128, rose each day, till it arrived at 160.

In another case of phthisis, the digitalis, was taken for four days, in doses of 8, 12, and 16 grains, when it produced considerable disturbance of the gastric functions, and the pulse became somewhat slower; but in spite of these occurrences, the medicine was continued in larger doses, and the vomitings and nausea, instead of being thereby aggravated, actually subsided, and the pulse remained unchanged. On the following day, however, the stomach distress returned, and the use of the drug was abandoned. The pulse had become somewhat irregular, but scarcely abated in frequency.

Such are the results of the experiments in which the powder of the herb was employed; we shall now briefly allude to the results of the exhibition of the aqueous extract.

To a man thirty-eight years of age, who had long suffered from dyspnœa, without any concomitant symptoms of diseased heart, and when his pulse was 72 and his respiration 20, 16 grains were given; on the following day the pulse was 68. The dose increased to a scruple; pulse 60. The dose 36 grains; pulse 54. Dose the same; pulse 48. The dose the same; pulse 48. Dose 52 grains; and, on the subsequent day the dose was raised to 72 grains, but the pulse did not fall below 48 beats. Four drams of the extract were taken in all.

In a case of chronic rheumatism, the aqueous extract was exhibited, although no symptoms of thoracic or cephalic disturbance were present. It was given at first in small doses of only 2 grains, the pulse being at the time 56. The dose was gradually increased to 4, 9, 12, 20, 32, 40, and 48 grains; and the pulse, on the corresponding days, was 64, 60, 60, 56, 56, 56, and irregular, 56, 44, and, again, 52. The stomach was not disturbed until the fifth or sixth day of the employment of the medicine.

The third case is one of acute bronchitis, occurring in a man fifty-eight years of age. He was first bled, and then the aqueous extract was exhibited, in doses of 6, 20, and 30 grains? the pulse fell from 64 to 52.

The three preceding examples appear to indicate that the aqueous extract of digitalis exerts a depressing effect on the circulation; but this is by no means constant or uniform, for three other cases are detailed, in which the pulse was either not affected at all, or actually rose in frequency during the administration of the drug. Two of the patients were phthisical—in the first stage of the disease.

The last case recorded is interesting, and we shall, therefore, give it abridged:

A young man, who exhibited most of the characters of pulmonary tubercular disease, was treated with the aqueous extract. M. Andral commenced with doses of one grain and gradually raised the dose to 20, and to 36 grains; the pulse fell from 68 to 52, but the digestive, respiratory, secretory functions were not at all affected. Indeed, the bowels were all the time exceedingly constipated (the effect of digitalis is usually to induce a certain degree of looseness). When the dose was raised to 40 grains, the pulse became irregular, and beat only 48; and it fell four when 50 grains were taken. There was no sickness or vomiting all this time, nor any confusion of head, nor giddiness.

The conclusions to be drawn from the preceding data (the authenticity of which is guaranteed by the name of M. Andral), are very different from what medical men would have anticipated; but we suppose that most of our brethren will agree with us in asserting, that the generally received opinions as to the physiological and therapeutic effects of digitalis, have been derived much more from books than from clinical investigations or experiments.—*Archives Generales.*

INFLUENCE OF GRAVITY AND OF A DEPENDING POSITION ON THE CIRCULATION OF THE BLOOD, IN HEALTH AND IN DISEASE.

To appreciate properly the importance of these influences, it is proper that we attend for a few moments to the condition of the circulation in different parts of the body in its most frequent attitudes and postures; viz. the vertical or upright, and the horizontal. As the former is the most frequently repeated and longest continued, it may therefore be reasonably believed to exert a more influential operation on the current of the blood than the other. Let us consider the effect of the upright position of the body (and this, we need scarcely say, includes the sitting as well as the standing posture), and we shall at once perceive that the arterial circulation in the inferior extremities is thereby facilitated, while the venous circulation is proportionally impeded. It is not therefore surprising that as the body advances in years, the operation of gravity which is acting constantly, except during sleep, against the venous current, should on many occasions induce engorgment of the veins of the leg, giving rise to varices, and to obstinate ulcers. The circumstance of these being almost peculiar to the lower limbs can be explained only on the principle we have stated. The condition of the circulation through the head is the very reverse; the arterial current has to ascend against the gravity of the blood, whereas the venous current downwards is favored by it. Whenever the upright posture is changed for another, say the horizontal, the circulation is very perceptibly affected; the veins of the face and neck become swollen and livid, the carotids and temporal arteries pulsate with greater force, and headache and confusion of thought are often induced. These phenomena are still more rapidly and more strikingly developed if the head is lower than the rest of the body. From this example we perceive that the veins of the head and neck are nearly passive tubes; their contractile power is very small, no doubt from its being seldom called into play; and hence they become easily distended whenever the current of their blood is not favored by gravity. The contractile power of the veins of the upper and lower extremities is much greater; but in the case of the latter it is often much weakened by their almost continued state of distention to which they are exposed.

Now the circulation through the other parts of the body also is affected, and that too very materially, by the influence of the gravity of the blood, but in different degrees according to their situations and positions. As a general truth we may assert, that whenever the venous circulation is favored by the gravity of the blood under ordinary circumstances, *there* will congestions be apt to take place, or to be much increased when they have already taken place, by any change of the accustomed position; and the reason of this is, that such veins have but little contractile power to aid in propelling their contents. To return to the subject of the cephalic circulation, is it not a fact of daily observation, that scarcely any one is able to continue long in a strictly horizontal position? the head must be somewhaat raised above the level of the body, else unpleasant feelings come on, which not only prevent sleep but may induce dangerous symptoms. It is not improbable that the less free return of the venous blood from the head when we lie down, may have something to do in the phenonema of sleep. And is it not, in part at least, this cause which keeps up the desire for sleep beyond the requisite period of repose; so that the longer we remain in bed, the longer still we wish to remain? It is not unfrequent to observe in elderly patients who have been, from whatever cause, long confined to bed, a set of nervous and cerebral symptoms supervene, and these may resist every means of relief which may be devised. The perceptive and intellectual faculties become dull and inactive; a state of torpor and apathy, of greater or less degree in different cases, comes on; the patient is unwilling to be troubled with any thing, as the answering of questions, and so forth; and when he does return an answer, perhaps it is confused and rambling. These are alarming symptoms, and if they continue and become aggravated we can have no hope of saving our patient.

On dissection of such cases we usually discover some degree of encephalic congestion, and perhaps a trifling effusion within the ventricles. We deem it not improbable that the true source and origin of most of the mischief are to be sought for in the altered state of the

cephalic circulation in consequence of the more frequent and longer continued decubitus or position in the horizontal attitude. As it is with the head, so it is with other parts of the body, when they are kept for a length of time in a depending posture. In the chest the stasis of the blood is always more considerable in those parts of the respiratory organs which are lowest; and it has often been remarked, that pneumonia, especially when it attacks those who have been long bedridden, very generally affects the base of the lungs. Perhaps some curious and interesting results might be obtained by endeavoring to ascertain the comparative frequency of pneumonia on the left and on the right side, of engorgements of the liver, and of the spleen, in relation to the ordinary position of the patients during their sleep. It is quite possible that the blood may acquire a tendency to accumulation in particular organs on that side which the person usually assumes while asleep.

In our July number of last year there is an interesting memoir of M. Piorry, on what he designated "pneumonia hypostatica," or pneumonia arising from a continued state of congestion of certain parts of the lungs, kept up by long confinement in bed. Almost all the cases occurred in old infirm patients admitted into the La Salpetriere, as objects of charity. The mere confinement to bed appeared often to bring on cough and other pectoral symptoms, and these were found to be quite irremediable, if the patients were kept all day in the horizontal position.

Auscultation readily discovered the seat of the pulmonary lesion; the dulness on percussion, and the absence of the respiratory murmur, with the consecutive rales, heard on each side of the spine, showed that it was the posterior part of the lungs which were chiefly affected; and the post-mortem examination confirmed in every case the accuracy of the diagnosis.—[Ed.]

The injurious effects of a depending position are well illustrated in the case of the female mamma, when not properly supported, especially during lactation; the veins become much enlarged and distended, and not unfrequently severe darting pains are felt through the organ, giving rise to apprehensions of the commencement of serious disease. Then, too, the very common malady of hemorrhoids is another striking example of the influence of gravity on the circulation of the blood; and the phenomena of many uterine affections also afford testimony to its operation; thus numerous cases of inflammation of the womb are induced by the patients too soon leaving bed, and getting up; the change from the horizontal to the vertical position favors the more easy flow of blood along the uterine arteries, while it retards the returning current in the veins; hence therefore we may readily explain the occurrence of inflammation or hemorrhage under such circumstances. Every obstetrical physician knows that it is of paramount importance to enjoin a reclining posture in all affections of the female internal organs of generation.

Again; it is the agency of mere gravity which induces a varicose state of the spermatic veins in men, constituting the diseases of varicocele and circocele, and these diseases are invariably aggravated by all causes which are capable of increasing the force of the gravity of the blood, or of relaxing the coats of the bloodvessels, such as exercise, long standing, heat, &c. The use of a well made and well-applied suspensory affords by far the most effectual relief. But the phenomena which result from the influence of gravity are still more apparent and striking in the extremities of the body. If the hand has been long hanging by the side, especially when it is warm at the same time, the veins become full and distended, every minute ramification can be traced, and the whole volume of the soft parts is greatly increased, so that even a feeling of unpleasant tension may be induced; by merely raising the hand and arm, and keeping it for some time in that position, all these appearances vanish, and the member resumes its wonted condition. This affords one of the best examples of the influence of mere gravity on sanguineous accumulations; and we can readily believe that the upper extremities would very often exhibit the effects of such accumulations, were it not for the free and frequent movements of them in all directions.—In the case of the lower limbs, the movements are much more limited, and their position is almost always unfavorable, except during sleep, to the return of the venous blood; whether we are walking, standing, or sitting, the blood has to rise from the feet upwards

against the force of its gravity. Hence it is, that varicose distentions of the veins of the foot, leg, and thigh are so frequent, and especially whenever there is any superadded cause, which may impede the easy reflux of the circulating fluid—the pressure of the gravid uterus, of an enlarged ovary, &c. is well known to be a common cause of such a malady. When the larger veins of the extremity have been varicose for some time, and especially if the patient neglects the proper means of relief, the capillary veins become gradually distended and engorged—the surrounding cellular substance becomes inflamed, hardened, and ecchymosed, in consequence of blood oozing out occasionally from the over-distended vessels, and being infiltrated into the cellular parenchyma. It is under these circumstances that the skin not unfrequently gives way, and ulcers, most painful and difficult to heal, become formed. Having thus briefly glanced at some of the most illustrative examples of the influence of gravity, as a cause of inconvenience and disease, we shall now direct the attention of our readers, for a few moments, to certain maladies in which the influence of this agent is conspicuously observed.

In severe cephalic neuralgias, the horizontal position is often found to augment the sufferings of the patient; and the only attitude in which he can find any rest is with his head well elevated. We do not mean to imply that these cases are of an inflammatory nature, yet it is very evident that they are much aggravated by any sanguineous congestion in the parts affected. In phrenitis, otitis, erysipelas of the face, the higher the head is kept raised, the more relief the patient experiences; and when any local inflammation, as of one ear, exists, we uniformly observe that the symptoms are mitigated by lying on the opposite side. Ophthalmia has often been translated from one eye to the other, by the person continuing to lie on the sound side when the inflammation was abating in the other, and this alternation of the seat of the disease may be repeated several times, if the physician's attention be not directed to the real cause. The spreading of erysipelas on the trunk appears to be not unfrequently influenced by the position of the patient; the tendency to spread is generally in a direction to the most depending parts—those on which the patient is resting; and rarely upwards, or to a part more elevated than the spot from which it has started. We have already alluded to the frequency of pneumonic attacks of the lower and back parts of the lungs, in patients who have been long bedridden, from whatever cause; and it is unnecessary to do more than merely again to point to diseases of the rectum, uterus, and male organs of generation in proof of the influence of position. In the treatment of ulcers of the leg, we are firmly of opinion that repose of the limb, in the horizontal posture, is by far the most important of all therapeutic means; poultices, lotions, and ointments will often all fail, unless this necessary adjunct be attended to at the same time; and even when the patient is not strictly confined, do we not invariably employ what may be termed compensating remedies, viz. strips of adhesive plaster, or rollers from the toes up the whole length of the limb; and the effect of these is well known to be, the taking off the pressure of the superincumbent column of blood from the veins of the foot and leg.

M. Gerdy, about a twelvemonth ago, instituted a number of experiments at the Hopital St. Louis, on the different methods of treating ulcers; different sets of patients were submitted to the different methods, and each method was employed by itself, in order that the results of each might be justly appreciated. Many of the details have been published in the article "Attitude," in the Nouveau Dictionnaire de Medecine. We shall mention a few of them.

When the limb on which an ulcer existed was kept upon an ascending inclined plane, it was found that the sore became pale, the suppuration was diminished in quanity, and a crust soon began to be formed upon the surface, and under this the healing went on more or less rapidly. If strips of adhesive plaster were used, at the same time that the elevated inclined position was retained, the cure was still more rapid: it was by combining the elevation with the use of adhesive bandages, and the entire repose of the limb, that the cicatrization of the ulcer was most speedily effected. Several cases of severe contusion were treated on the same plan, with very decided success—the contused limbs being retained in an elevated inclined position during the whole period of the treatment; the decrease of the pain, tension, and tumefaction was sometimes truly remarkable.

M. Gerdy is of opinion, that many white swellings of the joint may be very materially benefited, by an application of the principles which have directed his treatment of ulcers. He recommends that the affected limb be kept perfectly quiet and on an inclined plane, so that the foot is considerably more elevated than the thigh. He is not yet provided with the reports of any case to prove the correctness of his ideas; but in one case of elephantiasis of the leg, treated by elevation of the limb and compression at the same time, the result was most satisfactory—the subsidence of the enlargement was very striking.—*Archives Generales.*

EXPERIMENTS UPON THE SOUNDS OF THE HEART.

M. Majendie having recently drawn the attention of the Academy of Medicine to the above interesting subject, and propounded certain views of his own, which differ most essentially from those usually received, in ascribing the first sound to the shock or impulsion of the apex of the heart during its diastole against the thoracic parietes, and the second sound to the impulsion of the base of the heart during its systole, Professor Bouillaud, who has for many years distinguished himself by his zeal in the promotion of auscultatory medicine, deemed it proper to have recourse to direct experiments similar to those which Dr. Hope performed on asses.

He laid bare the heart of a strong full-sized cock, having previously satisfied himself by auscultation that its two sounds might be distinctly heard. He then listened to its action at first while enveloped in the pericardium, and then when divested of it; with the naked ear, and with the stethoscope; and not satisfied with one examination, he made several; and the result of these was, that he could always hear quite distinctly the double sound, or tic-tac of the heart, although there was no point of contact between the organ and any part of the thoracic walls. The friction indeed of the heart against the end of the stethoscope caused a particular sound; but this sound (simply one of rubbing) was so very different from the tic-tac of the organ itself, that it is almost quite impossible that they can ever be mistaken for each other. When the heart was cut out, by being separated from its attachments, it continued to beat for a few moments; but these beats of the empty organ were not accompanied with any perceptible sounds.

The preceding experiment was repeated twice upon rabbits with the same results; viz. the sounds of the heart were most distinctly heard, although neither during its diastole nor during its systole could it come in contact with the thoracic walls.

In conclusion, the Professor states that the results of his direct examination of the sounds of the heart have confirmed him in the opinion that the double bruit or tic-tac, which imitates so closely the clicks of a valve, is in fact, to be attributed to the play of the valves of the heart. *Journ. Hebdom.*

USE OF STEEL IN MENORRHAGIA.

M. Pigeaux very justly remarks that all uterine hemorrhages do not depend upon an unhealthy condition of the womb; and that not unfrequently they seem to be connected with a general cachexy of the sanguineous system as their inducing cause. This abnormal state of the blood, which in most constitutions indeed is accompanied with dysmenorrhœa, or even with a complete deficiency of the menstrual flow, gives rise at other times, under circumstances which as yet are not well understood, to profuse and very obstinate discharges from the womb. That these discharges are truly menstrual may be readily ascertained by noticing whether they ever coagulate or not; for it is very generally acknowledged that the true catamenial flux does not separate, as blood is wont to do. By attending, therefore, to this character, we shall be enabled to distinguish between menorrhagia and metorrhagia; and the distinction is of importance in a therapeutic point of view. No remedy has been found by M. Pigeaux so effectual in counteracting that sanguineous cachexy on which menorrhagia so frequently depends as steel; and the preparation which he prefers is the subcarbonate in doses at first of

from two to ten grains, and afterwards of a dram in the course of the day; when the medicine causes cardialgia, or any irritation of the bowels, he combines it with the subnitrate of bismuth, or with calcined magnesia. The steel should be continued for a month or two after the apparent cure.

The high authority of M. Recamier may be adduced in confirmation of M. Pigeaux statements.—*Revue Medicale.*

The following short observations and reflections are from the pen of Counsellor Dr. Pitschaft, of Baden, and are inserted in some of the late numbers of Hufeland's Journal of Practical Medicine:—

TREATMENT OF SCROFULA.

By far the most efficacious remedies against the various forms of scrofulous disease, are, according to the experience of our author, the artificial cinnabar (sulphuret. hydrarg. rub.) conium, cinchona, coffee prepared from acorns, and in obstinate cases, minute doses of the red precipitate of mercury, and the use of salt baths. To children of from one to two years of age, one of the following powders may be given morning and evening:—

℞. Sulphuret, hydrarg. rubri. ℈j.
Herb. cicutæ. gr. ij.
Mercur. precipit. rub. gr. j.
Sacchari alb. q. s.
M. in pulv. xx. divid.

The doses of the medicines are to be increased in proportion to the age of the patients. The use of salt baths, of acorn coffee, and of some of the preparations of Peruvian bark, promote the cure of the disease, especially when the constitutional health is impaired.

Dr. P. urges very strongly upon his readers the great importance of treating scrofula in its early stages, and on its first manifestation by his remedial plan; when the roots of the evil have struck deep, and spread themselves all round, the eradication is necessarily much more precarious. The use of the above powders must be steadily continued for two, three, or four months; and should the stomach be weak and apt to be deranged, a grain or so of the aqueous extract of aloes may be added with great advantage.

MEDICINAL PROPERTIES OF ALOES.

In minute doses it is an admirable stomachic, and seems to regulate the due secretion of the gastric juice; that it increases the flow of the bile is unquestionable.

The ancients denominated it "anima ventriculi." Rhazes says "aloe bilem rubeam expellit;" and Aretæus, "aloe ad inferius intestinum bilem ducit." And Ætius has very admirably explained its properties, when he writes "Aloe totum quidem corpus non purgat; bilom tamen, qui in stomacho, et ventre, et intestinis fuerit una cum duris excrementis, placide et suaviter educit." To torpor and inactivity of the bowels, especially of the large ones, whether this arises from a deficiency of bile or not, aloes is at once a safe and very efficacious antidote. Dr. P. strongly recommends the following formula, as affording a tonic and aperient pill:—

℞. Extract. aloes aquos.
Quininæ sulphatis, aa. ℈j.
M. in pil. xx. One or two at bedtime.

In almost all cases of jaundice, especially of the chronic kind, aloes is a sovereign remedy. The following formula is recommended:—

℞. Extract. aloes liquosi, gr. vi.—x.
Extract. taraxaci, ʒij.
Aquæ fœniculi, ℥vj.
Aquæ amygd. amar. conc. ʒj.
M. a table-spoonful every hour.

It is very serviceable in all affections of the liver.

EPISTAXIS AND HÆMOPTYSIS.

The application of cold washes to the testicles to arrest hemorrhages from the nose and chest has of late years been too much neglected.

In females the cold may be very conveniently applied to the breasts; and the most easy and effectual method is, to lay a bladder filled with pieces of ice on the mammæ.

In violent hæmatemesis the cold may be advantageously applied to the throat. The operation is probably exerted on the par vagum; and Dr. P., has with the same remedy sometimes succeeded in arresting an obstinate vomiting.

SYMPATHY BETWEEN THE CEREBELLUM AND THE GENERATIVE ORGANS

It is well known that Dr. Gall considered the cerebellum as the organ of the sexual passion. Plato says that the semen comes from the spinal marrow. In Meckel's Archives of Physiology for 1823, are detailed the particulars of the case of a two-year boy, in whom a premature development of the generative organs, and of the occipital region was contemporaneous. Beheaded and hanged criminals exhibit erections and pollutions; and Dr. Otto has communicated a most interesting account of the appearances of the generative organs in a woman who was hanged.—(Vide his Rare Observations in Anatomy.)

M. Serres has detailed some cases in which constant erections of the penis were among the symptoms present in chronic inflammation and congestion of the cerebellum; and in the 4th volume of Majendie's Journal, we are told, that if the cerebellum of some animals be exposed, and a stylet be forced into it, the penis becomes stiff and erect, and that if the stylet be pushed down the spinal canal as far as the lumbar region, seminal emissions take place.

Such are some announced physiological facts; and the consideration of them may lead us to a more successful system of therapeutics in cases of morbid excitement of the sexual functions.

Among the internal remedies which have acquired the name of anti-aphrodisiac, the least problematical is camphor. According to Fodere's experiments on the operation of various drugs, it appears that camphor acts specially on the cerebellum.—(Vide Archiv. Generales, tom. 3.) And Drs. Duncan, Perfect, and Osiander, have strongly recommended its use in that form of melancholy and mental disturbance, which not unfrequently occurs during the period when the sexual feelings are developed. A more important remedy is the application of cold to the occiput and nape of the neck. Frequent ablution with cold water is the simplest and most effectual method: occasionally, too, the local detraction of blood by leeches, or the cupping-glasses, may be of great service. Our attention ought to be directed to this treatment in cases of epilepsy accompanied with priapism and pollutions; and we should remember that it is in no way improbable that the same part of the nervous centre may be indisposed in many examples of hysteria; in this disease it is by no means uncommon for the patient to complain of an uneasy feeling in the back of the head and neck; and the phenomena of catalepsy must assuredly be somehow dependent upon an affection of the spinal marrow.

Baglivi long ago observed—

"Frequenti experientia constat, ex affectione uteri dolores verticem et occiput precipue invadere; pariter mulieres hystericis obnoxiæ affectibus sensum quemdam frigoris in vertice capitis habent; estque hoc precipuum hysteriæ diagnosticum."

EXAMPLES OF SYMPATHY IN DISEASE.

A very frequent, but hitherto almost unnoticed symptom of diseased liver, is a feeling of irritation and pressure on the larynx and pharynx. Dr. Pitschaft, when he first announced this, was not aware that former writers had noticed it; he finds however in Baglivi's work, the following sentence:—"Jecore affecto dolores ad jugulum e directo fiunt."

The etiology of this symptom is probably to be sought for in the distribution of the par

vagum; and in the same manner perhaps we may explain the supervention of aphonia on many occasions. How common this is when the mind is much agitated; terror, rage, and immoderate desire are well known to rob the persons of their speech.

Illi membra novus solvit formidine torpor,
Arrectæque horrore comæ, et vox faucibus hæsit.

Valerius Maximus mentions that Ægles Samius, a wrestler, who was quite dumb, when unjustly deprived of the reward of his victory, recovered his speech in the heat of indignation. It is to be kept in mind, that the liver and also the spleen, are always more or less affected after a paroxysm of mental agitation. Isodorus ingeniously remarks, "splene ridemus, felli irascimur, corde sapimus, jecore amamus;" and another author expresses the same sentiments, when he writes, "cor sapit, pulmo loquitur, fel continet iras, splen ridere facit, cogit amare jecur."

USE OF MERCURY IN RHEUMATISM.

Dr. Burdach has lately published several cases in confirmation of the good effects of small doses of the corrosive sublimate in cases of rheumatism. For the last twenty years Dr. Pitschaft has been in the habit of employing mercury against this disease; the preparation which he prefers is the red precipitate; it is more mild, and quite as efficacious as the sublimate. He gives it in doses of from one-eighth to a fourth part of a grain twice a day; should it irritate the alimentary canal, a small quantity of opium should be combined with it. When the periosteum is affected, the sabina will be found a useful adjunct; when the nervous system is irritable, the chenopodium may be given, and when the lymphatic system is torpid, the arnica and calamus may be given along with it. As an external application to the affected parts, Dr. P. recommends a salve prepared with caustic ammonia, or one with borax, if there should be any œdematous swelling of the limb.

TREATMENT OF EPILEPSY.

In almost all cases of epilepsy, depending upon some disturbance of the cerebral circulation, the following powders will, if persevered in for a considerable time, mitigate if not altogether cure the malady:—

℞. Cinnabar. fact.
Magist. wismuth. (qy. b.)
Herb. nicotian. aa ℈j.
Extr. aloes aquos, gr. v.
M. in pulv. xx. divid. One twice a day.

Many of the older authors had great faith in the virtues of cinnabar, and it acquired the name of magnes epilepsiæ. Dr. Pitschaft regards it as a 'remedium divinum.' We know that the Eastern nations very generally employ it, combined with musk in cases of hydrophobia.—*Hufeland's Journal.*

RESULTS OF DR. MOMBERT'S EXPERIENCE OF IODINE IN SCROFULA.

It appears that bronchocele and other forms of scrofula are very common in the district (Wanfried) where the doctor is settled. The town, of the same name, is situated in a valley surrounded with lofty calcareous mountains. The water which is drunk is good, although hard, in consequence of the quantity of carbonate of lime which it contains; but the general condition of the poorer classes is deplorably wretched, their habitations being damp and unwholesome, and their food and clothing scanty and miserable. Dr. M. has remarked, that strangers who come to reside in the district generally remain free from the malady, but that their children are almost quite as much exposed to it as the indigenous inhabitants. Many children are born with it; sometimes it disappears of its own accord within the twelvemonth, but it is apt to return in the second or third year. The use of the hydriodate of potass oint-

ment (a scruple to the ounce of lard) is generally sufficient to disperse the swelling in such cases, and the internal exhibition of iodine, or of its preparations, is unnecessary. Dr. M. has never in his practice had occasion to remark any injurious effects from the internal use of the tincture of iodine, in adults. Once indeed he saw the mamma of a young female very much reduced in size, while she was taking the medicine; but by discontinuing it for a time, and giving fennel tea freely, the organ regained its dimensions. In this case the iodine had caused a considerable increase in the flow of the catamenia. The burnt sponge seemed sometimes to act more beneficially than the iodine, and vice versa. It is therefore a good practice to alternate the use of the two remedies. The ung. hydriod. pot. should be used at the same time. This treatment must be cautiously watched in plethoric and irritable constitutions, as hæmoptysis is an occasional effect of it. It appears that a good many of the cases of asthma which present themselves to Dr. M.'s notice, are connected with scrofulous enlargement of some of the intra-thoracic glands; thus, in one example, he found on dissection that the trachea and even the œsophagus were compressed by a tumor which occupied the site of the thyroid gland. —*Hufeland's Journal.*

CASE OF SOMNOLENCY WHICH CONTINUED FOR FOUR MONTHS.

When Dr. Oelze, the narrator of this interesting case, first saw the patient, a girl eleven years of age, she had been asleep for about six weeks. He visited her on the 18th of May, 1826, and learned the following particulars from the attendants.

At the beginning of the year she had been attacked with measles, which were prevalent at that time in the village; the disease was mild and her recovery rapid; but in a few days, after she had been able to leave her bed, she complained much of a severe pain in the right ear; this continued for about eight days, and then subsided into the feeling of a dull ringing sound, so constant and so distressing, that the little patient had no sleep for nearly five weeks; otherwise there was no indisposition, except general weakness. Soon afterwards however violent headaches came on; and these were succeeded by colicky pains, which were always increased after eating. The pains in the abdomen ceased in the course of a fortnight, and then for eight days she was distressed with pains in all the limbs and joints of her body. On the 3d of April she fell into a state of torpor or sleep, from which no means which had been tried could rouse her, and she had continued so until the day when Dr. O. first saw her. Some days she uttered a moaning sound once or twice; but with the exception of this, she had lain without food, and as still as a corpse, till two days before Dr. O. had visited her; when, as the patient made an effort to weep, her mother had introduced a small quantity of milk into her mouth. On the following day a similar attempt at weeping was repeated, and this time she was made to swallow half a cupful of coffee. She occasionally coughed, and now and then turned herself in the bed. No urine had been passed since the commencement of the somnolency, and only once a very small quantity of hardened feces had been discharged. The skin had all along been unusually dry.

Dr. O. described her appearance as follows:—The face was pale, the body generally somewhat emaciated; the chest was well expanded, the abdomen drawn in, and the skin of every part felt exceedingly dry to the finger. The respirations were unusually short, but so gentle was each act, as to be with difficulty recognizable: they were however not uniform in this respect; for sometimes the chest appeared to heave up more considerably, although this did not seem to be the result of a deeper breathing; while at other times its motions could not be perceived. The pulsations of the heart were also very irregular in their frequency and strength: usually after each stronger beat numerous smaller ones followed; then the heart seemed to rest a while quite quiet, or only to be affected with a slight tremor: the pulse at the wrist however was tranquil and much more regular, but very small and easily compressible: it beat from 84 to 94 in the minute. The hands were kept always firmly contracted. When strong hartshorn was held to the nostrils, and applied on the upper lip, the patient sneezed and rubbed her nose with her hand. The effects of galvanism were then tried; slight shocks were sent

sometimes from the pit of the stomach to the forehead, eyelids, ears, &c. and at other times from the soles of the feet to the head, arms, and so forth. At first these shocks were evidently distressing, and caused her to draw herself, as it were, together, and to begin crying; the ears appeared to be the most sensitive parts to the galvanic irritation; for whenever one of the poles was applied to them, she endeavored to cover them with her hands, and strove to say that they were pricked and very painful. When asked if she felt pain in any part, she pointed to the neck. Dr. O. told her he wished her to take some coffee, and she permitted a spoonful or two to be poured with a spoon into her mouth; but the efforts to swallow it were evidently most painful and difficult, and it was sometime before all of it disappeared. The deglutition was easier after both sides of the neck along the track of the œsophagus were well galvanized. When the hands were galvanized, they were more contracted than before, and never became properly extended. It was remarked that no particular twitchings of any muscles were ever induced by the application of galvanism. The patient seemed to retain perfect consciousness, and to observe whatever was going on around her, although the eyes were kept always closed. When asked to look at any thing, it was easily seen that she strove to do it; but the eyelids were never more than very imperfectly separated from each other. When drawn asunder a slight resistance was felt, sufficient to indicate that a state of spasmodic contraction of the orbicularis had existed; the eyes had a staring look, and rolled slowly from one side to the other—the pupils were considerably dilated. When the patient uttered any cry, it was observed that she took long and deep inspirations without any apparent impediment or difficulty; but no sooner was she asleep than the breathing became again short and much quickened. It was curious to remark how quickly and almost instantaneously she ralapsed into sleep, even after the excitement which had been produced by galvanism was so violent that she had been screaming, kicking with her feet, and beating with her hands against all attempts to repeat it. However much agitated the rest of the body was, the eyes were always kept shut.

Dr. O. having persevered in the employment of galvanism for a full hour without any satisfactory good effects, discontinued it; and concluding from the history of the case that the "primum mobile," or at least one of the most prominent features of the case, was the cessation of the cutaneous secretion, directed his efforts chiefly to restoring this to its normal condition. For this purpose he ordered a mixture of infusion of valerian, camphor, and the compound sulphuric spirit.

From the 10th to the 30th of May.—It is stated that the child slept very tranquilly after the application of the galvanism until the next morning, when she seemed rather more lively, and told her mother, that the ears, chest, and abdomen in particular, had been very painful from it. From that time a cupful of milk was given, by spoonsful, each day, but it had not agreed with the stomach, for indigestion, nausea, and even vomiting, had been almost always brought on after it was given. The medicine had caused nearly the same effects. Since Dr. O.'s first visit the sleep had not been so constant, nor yet so profound; for the mother had been able to obtain a few answers from her every day. At times a gentle perspiration had bedewed the surface. On the 27th of this month, for the first time since the third day of the preceding one, some urine was voided, and the patient had indicated by signs that she wished to be taken out of bed, in which two or three hardened scybalous masses were found.

Dr. O. visited her on the 30th—she was asleep, and the respirations were so gentle that he could scarcely perceive that she breathed at all. The same irregularity in the movements of the chest were noticed, as on the first report; and the actions of the heart were still as confused; but the pulse retained its former regularity, and now beat 74 in the minute. The hands were in the same contracted state, and when Dr. O. inserted his fingers between those of the patient and the palm of her hand, he found that they were so very firmly grasped, that it required a considerable effort to withdraw them. She took no notice of what was addressed to her; and even shaking her body and limbs seemed not to affect her. Ammonia held to the nostrils produced only a slight twitching of the features.

The application of galvanism was again resorted to, and similar effects were obtained from

its employment. It seemed this time that the patient remembered the annoyance which she had experienced before; for she struggled very violently against every attempt made to repeat the operation. The transitions from agitation to sleep were now not so rapid as on the former occasion. Deglutition was quite as difficult as before; and most of the other phenomena were unaltered.

A warm bath, in which a considerable quantity of common salt had been dissolved, was ordered for her. When put into it she attempted at first to support herself with her hands. Some frothy saliva escaped from the mouth, and she then lay still and motionless as a corpse; the hands became more compressed, and indeed altogether the spasmodic state or tendency of the body was rather increased than diminished by the remedy; but upon being removed from the bath and wrapped in warm blankets, a strong perspiration broke out, and this lasted for upwards of two hours. The medicines which Dr. O. prescribed at this visit were the following: a grain and a half of the flowers of zinc every night and morning, and an enema of tobacco and chamomile infusions once a day.

From 30th of May to 9th June.—The sweating, which had followed the use of the warm bath, had returned although less profusely, several times afterwards, but with no amendment of the symptoms; indeed the stupor seemed to have increased somewhat; for the patient had spoken scarcely a word, and not a mouthful of nourishment had been taken. Only two injections had been given, and these had never returned; it was therefore deemed unsafe to repeat them. A sort of general spasm, or convulsive fit (of a truly opisthotonic character), had taken place almost every day, and this was always preceded and announced by the patient's screaming. The spine and head were violently bent backwards, and the limbs rigidly extended. This state continued for three, four, or five minutes, and then the spasm abated, and the joints became more flexible. A small quantity of urine was voided on the 8th of June.

The next day Dr. O. saw her, and found her very nearly in the same condition as at his former two visits. The breathing and circulation were unaltered; the alæ nasi were observed to dilate and close more powerfully, and the eyelids frequently to be affected with tremulous movements. The galvanism was repeated, as far as the patient's struggles permitted its employment: it had the effect however of forcing her to answer all questions more readily and distinctly. Soon afterwards several paroxysms of spasm came on, at intervals of from eight to twelve minutes. One grain of calomel with one of the red sulphuret of antimony and three of sulphur, were ordered to be given morning and evening, and an enema composed of valerian, tobacco, and chamomile infusions.

On the 16th it was found that the attacks of cramp had been less frequent on the whole, although there were generally still four or six daily. The patient had drunk a little milk now and then, but she had not spoken at all; and only once was any urine discharged. The pulse beat from 75 to 80; the other phenomena unchanged. The effects of opium were now tried; fifteen drops of laudanum were given, and repeated every hour for three times. When the second dose was given she became more lively, and began to scream out; thereupon a paroxysm of opisthotonos came on, and lasted for several minutes. A warm bran bath was ordered, and the same injurious effects followed as after the use of the water bath. The powders prescribed at the former visit were continued.

July 4th.—Very little change in any of the symptoms; once only there had been a discharge of urine, and of feculent scybala; and of late the paroxysms of cramp had become more frequent; some days they recurred almost every hour, and their duration also was longer than before. The calomel, &c. powders had been given as often as possible; for frequently not a grain or drop of any thing could be got down; and it was only to be effected when the mouth was opened during the crying which preceded the paroxysm. At other times it was kept firmly closed. Numerous clysters had been given, and every one of them retained. The surface of the body was almost always cold, although the temperature of the air was at this time very high.

About a week after this date the child began to be less drowsy, and to notice more and more

whatever was going on in the room where she was. It was quite apparent that she understood the conversation of those who were talking to her mother; and on one occasion, she intimated that she wished her chest to be rubbed again with a hartshorn liniment, which she had observed to have been put aside in a cupboard. She took more willingly small quantities of milk and of coffee; but both of these drinks were generally vomited soon after being swallowed; this irritability of the stomach had existed from the commencement of her malady. Urine had been voided once, in the last ten days.

25th July.—There had been some abatement of the somnolency since last report, and the attacks of cramp had been less frequent and severe. She had taken more nourishment, although vomiting still occasionally followed the effort of swallowing. The sensibility and consciousness were also more distinct; but though observant of what was done or said in her presence, she had not of late spoke at all, and had answered questions put to her only by winks and nods.

The urine had been discharged three times, and the bowels relieved twice.

The action of the heart was less irregular than hitherto, and the movements of the chest were more uniform; the eyelids were more readily separable, and frequently agitated with a tremulous motion; the pupils were now natural. When Dr. O. visited her she was in a profound sleep, which was not in the least disturbed by shaking her violently from side to side.

The powders and infriction on the spine were ordered to be continued.

From this date the somnolency became very much less, and the tetanic convulsions almost quite ceased.

It had been observed that the degree of the former had been always proportionate to the violence of the latter; and now both symptoms abated simultaneously. The appetite gradually returned, although the stomach continued to reject part of the food; the bowels and urinary bladder relieved themselves daily. The eyes were observed to be very sensitive to the impression of light.

By the middle of August she had recovered so far that she remained lively during the whole of the day. When she attempted to walk, her gate was awkward and tottering; the spine appeared to be exceedingly weak, and, upon any exertion, the breathing became oppressed and the circulation much hurried, The speech, however, was still almost quite deficient, and when she was asked the reason of it, she pointed to her chest where, it seemed, she felt much embarrassment and distress. However, in the course of another fortnight, it was greatly restored, and from this date the patient was pronounced to be quite well. The child, it appears, had no remembrance of her illness, and of what had been done to her during its continuance.

Reflections.—The somnolency, in the preceding case, seems to have been induced by the mismanagement of an attack of measles, especially during the eruptive stage. The early symptoms were those of pain, and feeling of noises in the right ear: as these subsided, severe headaches, then pains in the abdomen and limbs, set in, and, lastly, the somnolency and tetanic spasms succeeded. This succession of symptoms seems to indicate the operation of a rheumatic-gouty diathesis as the cause of the malady.

The physiology of such a case is certainly obscure:—As noticed before, the co-existence and co-abatement of the drowsiness and convulsions were probably owing to the same morbid state; but what the nature of that state was, it is not easy to determine; perhaps some peculiar pressure on the nervous centres. It is not a little singular, that the organic functions can be maintained for such a length of time, without any fresh supply of nutriment, as they were in the present case. For six entire weeks, not one mouthful of food was swallowed; and, for the next five or six, only from a half to one small cupful of milk and coffee in the course of the day; and half of these quantities was generally rejected by vomiting.

The respiratory function was, indeed, imperfectly performed, and the circulation was more or less disturbed—so also were the secretions. But yet the emaciation which took place was by no means very striking, and nothing like what might have been anticipated from so length-

ened an abstinence. A feature of the case worthy of notice is, that the arterial pulse was steadily regular, although the actions of the heart were almost always irregular and confused. This would seem to indicate that in some convulsive diseases the actions of the heart and arteries are independent of each other to a certain extent. As to the therapeutic deductions, Dr. O. is inclined to attribute most of the benefit from the medicines employed, to the mercurial preparations; and, of these, the most efficient seemed to be the calomel.

The venerable Hufeland has appended a remark or two of his own to the preceding report of Dr. O. He alludes to the metastatic origin of the somnolency and cramps, and conjectures that a certain degree of cerebral effusion had existed during the greater part of the existence of the malady. He attributes the recovery of the patient to the agency of the mercury having excited the action of the absorbents. He approves of repeated blisters, applied to the nape of the neck.—*Journ. der pract. Heilk.*

DIGITALIS IN DROPSY.

M. Chrestien states that he has cured a great number of dropsies, consequent on abdominal phlegmasia or intermittent fevers, by the use of the tincture of digitalis in frictions on the abdomen, or inner part of the thighs; half an ounce three or four times a-day. His formula for the tincture is as follows:—take an ounce of the digitalis purpurea, and three ounces of alcohol, and let it macerate. M. Chrestien considers that digitalis is a general excitant, and has besides, specific powers, which cause an abnormal secretion of urine, and diminishes the frequency of the heart's action. If this latter effect does not take place, it is owing to an irritable condition of the alimentary canal.—*Revue Medicale.*

CAMPHOR OBTAINED FROM PARSLEY.

If fresh oil of parsley be placed in contact with water, it will be changed into camphor in the course of a few days. This product can be separated from the water by filtration, and dried on bibulous paper; dissolved in alcohol, it crystallises in prisms and needles; it dissolves at + 30°, and it requires a much lower temperature to become solid again; at + 21° it enters into ebullition; at + 390° it assumes a brown color, but does not sublime. Its composition is six atoms of carbon, seven of hydrogen, and two of oxygen.—*Journal de Pharmacie.*

CIVIALE.

The King of Sweden has presented this celebrated lithotritist with the cross of the Polar Star, the highest mark of honor ever confered on a savant in that country, and it may be regarded as a proof of the success of lithotrity in Sweden.—*Gazette des Hopitaux*

SUTURE OF THE PERINÆUM.

Dr. Mineogliano having read that M. Roux had cured several cases of ruptured perinæum, consequent on parturition, resolved to follow his example, with this exception, that he used the hare-lip pins, instead of the sutures recommended by Roux. The case fell under his care the second day after the rupture; the pins were kept in ten days; the operation was successful. The patient afterwards became pregnant, and was delivered without injuring the cicatrix. —*Op. Med.*

END OF VOL. I.

THE

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.,

Prof. of Anat. in Jefferson Med. Col., Philada.

ASSISTED BY JAMES HAGAN, M.D., WASHINGTON.

ABSENCE OF CERVIX UTERI IN LABOR—VAGINAL CÆSAREAN OPERATION SUCCESSFULLY PERFORMED.

By Dr. Caffe, of Paris.

I was sent for by Madame Mouray, midwife, on the 4th December, 1833, to the house of a patient, No. 110, Vielle Rue du Temple. The patient was nearly forty years of age, and of good constitution; had borne three children the last eight years since, and had now been in labor thirty hours. The midwife, unable to feel the mouth or any orifice in the uterus, had previously obtained the assistance of a medical man, who, believing there was an antiversion of the uterus, had recommended the introduction of a pessary. I examined her in various positions, but, neither with the finger nor a small blunt-ended probe, could I discover any orifice in the uterine tumor. The vagina was five inches long, dry, but swollen on its upper surface, where the mucous membrane projected considerably. Uterine contraction was regular and active. This was at six A. M. Judging that the vaginal Cæsarean operation was here indispensable, I desired a consultation; and at eight o'clock, M. Hatin saw the patient with me. We fixed the hour of four P. M. for the performance of the operation; but as the contractions of the uterus were not then of alarming violence, we agreed still further to postpone it, and, while the midwife carefully watched the patient, to moderate the pains and prevent improper motion, we sought the counsel of MM. Velpeau, Lenoir, and Larcher, who successively examined the patient, and confirmed the accuracy of my diagnosis, and the necessity of operating. Accordingly at eleven P. M., I proceeded to the operation in the presence of MM. Hatin and Roussel, and M. Pertusio, an Italian physician.

The speculum could not be employed, on account of the protecting mucous membrane and the extreme narrowness of the vagina. I used a straight narrow bistoury, with linen wrapped round it to within half an inch of the point, which was protected by a small piece of wax. The uterus was divided, layer by layer, to the extent of about half an inch, in a line between the rectum and bladder, its contractions assisting the division. On arriving at the cavity of the uterus, about four ounces of liquor amnii were discharged; and the head of the child was distinctly felt by all present. To avoid and prevent laceration, I again introduced the knife, and practised two short lateral incisions, so as to convert the aperture into a crucial one which shape, however, was immediately effaced by a pain which rendered the aperture oval and enlarged it considerably, but without any tearing of the edges.

The woman felt no pain during the operation, nor was there the least hemorrhage; in an hour afterwards a living child was born. The uterus, in contracting after delivery, greatly diminished the extent of the aperture; recovery was rapid and uninterrupted by any accident.

As soon as the lochia had ceased to flow, I took the precaution to introduce occasionally between the lips of the aperture a gum elastic bougie, which was allowed to remain several hours. The aperture can be felt small and irregular, surrounded by no projection or trace of the neck of the organ. At the end of six weeks the catamenia appeared, and have since recurred. As regards the cause of this obliteration of the neck of the uterus, it was with the greatest difficulty that I could ascertain from the patient, that she had, during the early months of pregnancy, been in the habit of injecting a solution of common ashes (*cendres de foyer*) into the vagina, and even into the cavity of the uterus,(?) by means of a gum-elastic catheter; that she had felt each time intolerable pain, and had observed suppuration and the detachment of portions of the skin.—*Abridged from the Journal Hebdomadaire.—Archives of Medicine.*

HUMAN OVOLOGY.

Such is the title of a paper, in which M. Coste principally endeavors to prove that, up to the present day, the human egg has not been studied under the most favorable circumstances, in order to observe the relation which exists between its organization and the eggs of other vertebrated animals. When we have studied the human egg, he states, it has in general for some time descended into the uterus, where it had undergone transformations, capable of disguising its real analogy, and which at a more anterior epoch might have been easily perceived. Further, as this egg has, in almost every case, been collected in consequence of a miscarriage, it was more or less altered in its form; and when attention has been paid to this circumstance, an accidental condition has been regarded as normal, which has conduced to the discovery of fundamental differences between this egg and those of mammiferæ and birds. In laying open the causes of these errors, I would recognize, continued M. Coste, that the resemblance in their origin is complete; and the differences, which, at a later period, can be signalized in exaggeration or attenuation of general facts, are common to all species.

GOOD EFFECTS OF THE EXTRACT OF BELLADONNA IN THE REDUCTION OF PARAPHYMOSIS.

By J. Mazade, D. M., Anduse.

A few days since I was consulted by a man thirty years of age, for a severe paraphymosis. The opening of the prepuce was extremely small, the gland had become uncovered, and he found it impossible to force it to re-enter under its natural envelopment. Not suffering at first any inconvenience, he permitted the gland to remain in this state, and continued his usual employment. The gland soon became tumefied; it much increased in size, and was extremely sensible, in consequence of the strangulation from the prepuce, which formed a tight collar around the neck of the gland: the whole of the penis was painful and tumefied; urine expelled with the greatest difficulty; finally, all symptoms of acute inflammation ensued. I endeavored to draw forward the prepuce, but all my efforts were useless.

I submitted the patient to an antiphlogistic treatment, and applied mercurial frictions, still the acute symptoms continued. Excision I believed my only resource; to this my patient would not submit, and I was obliged to have recourse to some other remedy.

I prescribed half-dram doses of the extract of belladonna, to be rubbed on the seat of strangulation, as well as on the glans penis. Soon after the third application, the prepuce was less engorged, the tumefaction of the gland decreased, and its appearance became pale, and wrinkled. At the desire of the patient, I did not attempt the reduction, and he continued the application of belladonna.

After two more applications, the reduction was effected with the greatest facility; and all painful symptoms subsided; the tumefaction of the parts entirely disappeared.

In this patient the action of belladonna was evident, and to it the cure must solely be attributed. A single fact, it is true, is not of much value in therapeutics; and I publish this case only, that the use of this drug might be more generally adopted, and in order to give fresh support to the advantageous results said to have been obtained from this medicament in strangulated hernia.—*Gaz. des. Hopitaux.*

MR. TATHAM ON SUICIDE AFTER COITUS.

To the Editors of the London Medical and Surgical Journal.

GENTLEMEN,—Observing in your journal of July 5, an account of the post-mortem examination of a female who committed suicide almost immediately after coitus, I was struck with the relation of the case from a close resemblance it bears to one that came under my observation last autumn; this circumstance has induced me to forward you the particulars for publication.

I am, gentlemen, your obedient servant,

Huddersfield, July 6, 1834. THOS. ROBT. TATHAM.

I was sent for by the chief constable of Huddersfield on Sunday morning, Oct. 6, 1833, to make an examination of the body of Sarah Boothroyd, a stout, well-formed, healthy young woman, who was found drowned the day before in the canal Aspley. Some suspicion was excited in the neighborhood that she had come to her death by unfair means, having been observed walking the previous night in the vicinity of the canal in company with a young man of this town, who was afterwards taken into custody. Thinking it possible the affair might terminate in his conviction, I availed myself of the assistance of Mr. Robinson, surgeon to the Huddersfield Infirmary, in making the autopsy. The inquest was held by Michael Stocks, Esq. coroner, from Halifax. No evidence appearing to criminate the prisoner he was liberated.

The external appearances of the body showed no marks of violence, neither was there any external symptoms of pregnancy. Breasts natural, areola light colored. On unfolding the labia pudendi and inspecting the vagina, we found a recent laceration of the hymen; the edges were jagged, and had all the appearances of being very recently ruptured. Within the vagina a little bloody water was retained, which exhibited nothing further remarkable; her chemise was stained with blood both before and behind. The thoracic and abdominal viscera were healthy; the uterus and its appendages no longer than those of a virgin, but they appeared more vascular than usual; the ovaries and broad ligaments participated in this state. I cannot say there was any contraction of these ligaments drawing the ovaries nearer to the uterus: it certainly does not now exist in the preparation by me, having brought away the parts. The left fallopian tube contained a creamy fluid resembling the thicker part of the semen, which was very abundant; no peculiar odor was observable: it might be obscured by the smell of flesh; the canal seemed to be contracted in one part, and offered a little obstruction to passing a probe; when laid open to each extremity it presented to us the appearance of an ovum half way in its passage to the uterus. Both fallopian tubes were very vascular, of a vivid red color, the fimbriated margins slightly curled inwards. The right tube was empty. The uterus contained a thick mucus, seemingly made up of this creamy fluid tinged with blood; its mucous membrane was highly reddened, but not of such an arterial hue. The left ovarium showed two well-marked recently formed corpora lutea, and some other ova prominent on its surface.

CASES OF NÆVUS SECCESSFULLY TREATED BY ARTIFICIAL ULCERATION.

In the ninth volume of the *Transactions of the Medical and Chirurgical Society* (1818), I endeavored to point out the anatomical characters of nævus, and the various modes of treating this disease. Besides the different operations of extirpation, the ligature, the seton, and tying the vascular trunks supplying such tumors, all which modes of treatment were in use, I then proposed another mode which I had at that time adopted only in nævi of a small size. I can now with confidence venture to recommend this mode of treating not only small nævi, but as a safe and very easy mode of removing nævi of the largest size. I have employed it with complete success, where none of the other modes of operating were even practicable, in consequence of the great extent and the dangerous position of the tumor.

The mode to which I allude is, that of destroying them by *ulceration*, a practice which I was first led to employ, from having noticed the effect of a strong solution of corrosive sublí-

mate, when applied to a subcutaneous nævus, situated on the back of a child. By means of this application the skin ulcerated, and the ulcer spread rapidly, destroying not only the integuments, but the substance of the tumor; after which the ulcerative process went no further, and the surface cicatrized. I had also observed that nature occasionally employed the same process for effecting a *spontaneous* cure of nævi, an ulceration commencing on a thin portion of skin covering the tumor, and then extending into the tumor itself, which it ultimately destroys.

The most effectual and easily manageable mode of producing an artificial ulceration for the destruction of nævi, which I have been able to contrive, is by the application of *kali purum*, the action of which is so powerful as to destroy the vitality of the soft parts on the slightest application. The dead portion is afterwards separated from the living by a process of ulceration, and after the slough thus formed has come away, an ulcerated surface remains, the ulcer spreading over the whole extent of the diseased mass. No bleeding takes place during this process, as nature employs the same means here to prevent hemorrhage as when a part of the body mortifies, the extremities of the vessels being gradually filled up by coagulated blood, in proportion as the ulceration advances in the mass, and the cells of the parenchyma are filled with coagulated blood, the circulation through these having been arrested.

It is sufficient to apply the kali only to a small point of the tumor, for which purpose a piece of adhesive plaster, with a hole cut in its centre of sufficient size for the application of the caustic, should be placed on the tumor, which serves to limit the action of the kali to the desired extent. This done, the kali is to be rubbed on the skin, until a sufficient action is distinctly produced, which is indicated by the discoloration of the skin. If, in two or three days, it is found that the action of the kali has not been sufficient, it may then be reapplied and rubbed on a greater extent of surface, or with greater force, thus securing the formation of a larger and deeper slough. In this manner may it be used any number of times, and it is surprising, after a complete slough has thus been formed, how rapidly the subjacent tumor melts away. It is not required that the dead portion should separate, and leave the ulcerated surface exposed. On the contrary, the slough should be left unmolested, as it forms the best dressing, and the ulcerative process will be found to go on imperceptibly, as it were, underneath it, its progress being indicated only by the collapse of the tumor.

The excellent effects of the *kali purum*, and the mode of using it, are illustrated in the following cases:—

Case 1.—An infant, two months old, was brought to me with the largest subcutaneous nævus I recollect ever to have seen. It was situated on the left side of the chest, its base covered the greater portion of the pectoral muscle, and it was of such bulk as to prevent the arm from resting on the side. It had all the usual characters of this species of tumor, and the child appeared, in other respects, to be in perfect health. The removal of so formidable a mass with the knife was quite impracticable, and to attempt to include it in a ligature would have been equally hazardous. I was therefore led to attempt its cure by ulceration, and the result was most satisfactory. I proceeded with great caution, applying the kali only on a surface not exceeding the size of a sixpence at the edge of the tumor. The kali was applied in like manner every second day for one month to an adjacent portion of the tumor, and every third or fourth day for the succeeding month, the ulcerative process being not only established, but accelerated, by this mode of treatment, the result of which was, that the whole of the mass ulcerated and sloughed away; and when I saw this child several years after, I had the gratification to find that no vestige of the tumor remained, nothing, in fact, to denote that it had ever existed, but an extensive cicatrix.

Case 2.—For the following account of very large nævus on the face, treated by ulceration at the *Hospital of Surgery*, I am indebted to Dr. Reid, under whose immediate care the treatment was conducted:—

July 1, 1829. A boy, eight months old, had a tumor of about the size and form of half a small orange, occupying the centre of the right cheek, and flattened at the top, where there was no open sore, but where the surface was of a speckled white and red color, and concave.

The edges of this indentation were of a dark red, and much thickened. It could be handled freely without causing the child to cry. It was increasing rapidly in size, and the temperature of the part was always higher than that of the other cheek. Several eminent surgeons saw this case, and gave an unfavorable opinion as to its termination, in consequence of its great size and situation. One gentleman thought that excision offered the only probable chance of cure, but was afraid that the disease had spread too deep to allow even of that operation. On the 7th of July, a space of about the size of a sixpence, in the centre of the tumor, was rubbed freely with the *kali purum*, a piece of plaster with a hole in it of the requisite size having previously been applied. Two days afterwards it was again rubbed, only a very small eschar having formed. On the 19th of August, up to which time the kali had been applied every other day during the first fortnight, and every third day after that time, the whole apex was covered by an eschar, half of which had come away leaving a cavity in the tumor. On the 25th of August the tumor was much reduced in size; the eschar then occupied a space of about the size of a crown piece and the cavity was filling up with granulations. The kali was now again applied round the edges. The application of the caustic was continued on different parts of the tumor about twice a week, until within a few days of the 14th of September, on which day the eschar was entirely thrown off, and the sore had healed. In another week a fresh eschar, of about the size of a shilling, was formed, as there still remained an elevation above the cheek. One or two sloughs were again thrown off, and the tumor was brought to a level with the cheek, and by the beginning of November nothing was observable but the scar occasioned by the caustic, and a certain induration of the integuments.

There has never been the slightest increase in size of the cheek since that period, and as the boy has grown up, the scar has become even less observable than before, the parts being much softer to the touch than formerly.

Remarks.—These cases are sufficient to point out the mode by which nævi, of whatever size, and in whatever situation, may be cured by ulceration; and I may remark, that I have never yet met with any case in which such treatment was not applicable. In my opinion, indeed, this plan renders the more severe operations of extirpation, and, more particularly, of tying large arterial trunks, such as the carotid artery (which dangerous modes of treatment I had recourse to myself in three instances, before I was aware of the plan now detailed), quite unnecessary, and, in fact, I would say, inadmissible. As such serious operations are still resorted to by some eminent surgeons, I am the more anxious to make public the present safe and efficient mode of curing nævi.

A considerable number of cases were treated on the principal of ulceration in the *Hospital of Surgery*, in Panton-square, and I have adopted it in a great number of instances in private practice. Many cases have since been successfully treated with the *kali purum* by other surgeons.

In a thesis on the operation of trepaning in wounds of the head, M. Velpeau comes to the following conclusions:—

Indications for the Trepan.

1. In wounds of the head with contusion of the bone, and detachment of the pericranium and dura mater.
2. Necrosis of the thickness of the bone.
3. Simple fractures, if accompanied by violent contusion, or effusion on the dura mater.
4. Fractures, with splinters of bone, when there is not a considerable space between the fragments.
5. Fracture with depression, unless there be no symptom of compression.
6. In case of foreign bodies where they are not too deeply fixed.
7. In effusion, whatever be its nature or seat.
8. In all cases of compression, sufficient to trouble the cerebral functions.
9. In contusion of the brain, with symptoms of suppuration or paralysis.

10. In some cases of fixed pain, &c. under a point of the skull anciently wounded.

11. For convulsions or epileptic accidents depending on the same cause.

15. For the removal of fungous tumors, &c. which are developed on the dura mater after wounds of the head.

Contra-Indications.

1. When the contusion of the bone is slight and simple.
2. In fracture of the base of the skull, or if the injury extend there.
3. In simple uncomplicated fracture.
4. When the foreign body is lost in the brain.
5. When the effusion of blood or pus is diffused.
6. When the compression does not produce paralysis, and depends on a cause acting suddenly with its utmost energy.
7. In case of concussion.
8. When there is general inflammation of the brain.

REUNION OF FRACTURE OF THE CERVIX FEMORIS WITHIN THE CAPSULE.

To the Editor of the Medical Gazette.

SIR—As the question of union or non-union of fractures of the cervix femoris within the capsule, has long been mooted, and seems hardly yet to have been satisfactorily determined, perhaps the annexed case may not be uninteresting to your readers.

In the controversy it is not my object to engage, nor do I think it becoming to place my opinion in opposition to that of others, who, on this particular subject, have enjoyed a more ample field of observation. The narrative is, I hope, penned without bias; and such as it is I leave it at your disposal.

I am sir, your obedient servant,

THOMAS FAWDINGTON.

Manchester, July 21, 1834.

Anne Whitehead, aged sixty-eight, of active habits and good constitution, was thrown down by a bale of goods which fell from a wagon, in June 1828. She could not rise without assistance, and being unable to walk, was immediatly conveyed home in a coach. When I first saw her, some hours after the accident, she complained of great pain in the left hip, increased by moving the limb, which was shortened from an inch and a half to two inches; the foot at the same time being everted. The length and position of the limb could easily be restored by extending, and an obscure crepitus perceived by now rotating it; but the moment the extension was relaxed, the limb was drawn into its previous position. Little swelling existed at this time. As, from the evidence stated, it appeared to me there was fracture of the neek of the thigh bone, and believing that Hagedorn's splint was better calculated than any other to maintain the fractured extremities in apposition, and thus afford a chance of reunion, if such were feasible, I at once adopted his plan, with a slight modification. The patient, however, could not be persuaded to submit to the restraint beyond a fortnight; she complained of the position as extremely irksome, and suffered pain from the pelvic bandage. The extremity also was swollen and œdematous. For these reasons, the semiflexed posture was substituted, by placing the limb on the double-inclined plane; but of this, too, she soon became impatient. The swelling and œdema had now disappeared. Thus driven from such as I was disposed to regard the most efficient resources, the injury was abandoned to the palliative measure of Sir Astley Cooper. The woman continued this for nearly two months, when she began to walk with crutches, afterwards with a stick only; and at the expiration of about nine months from the period of the accident, she was able to move along with a tolerably firm, though irregular step, without any artificial aid whatever.

In May, 1833, the subject of this case died from bronchitis, which afforded us an opportunity of examining the seat of the injury, of which the following contains a brief description:—

When the body was laid on the table the knee and foot on the left side were everted, and the limb measured, in length, not quite an inch and a half less than the right. On reflecting the muscles, the capsular ligament of the hip-joint appeared thickened and irregular on its external surface, and the trochanter major situated nearer to the dorsum ilii than usual: with these exceptions, nothing remarkable was detected until the capsule was opened. The neck of the femur, which seemed buried in the acetabulum, was evidently roughened and projecting forward; and here the reflected portion of the synovial membrane was adherent, but so slightly, that with the handle of the scalpel the adhesions were easily removed. The bone was now taken from its socket, and brought away, along with its fellow, for more accurate inspection: it presented the following appearances:—anteriorly, the prominent part of the cervix projected considerably beyond the level of the base of the trochanter major, in consequence of a deposition of new bone, which extended from the latter point to within less than a quarter of an inch of the circumference of the head, yet strictly within the capsular ligament; and here the synovial membrane was opaque, thicker than natural, and flocculent on its surface, from the separation of the adhesions before-mentioned. Posteriorly, the cervix was greatly hollowed, though tolerably equal and smooth, and the depression in this aspect was continuous with the trochanteric fossa. The head of the bone, which had assumed a peculiar obliquity, overlapped, in an unnatural degree, the neck, so as to contribute to the hollow referred to; and its articulatory margin was sharp and abrupt from ossific deposition, which extended forward into the mass of new bone situated on the forepart of the cervix.

The upper part of the head was sunk to the level of the trochanter major, and its lower part was in close approximation with the trochanter minor; while the axis of the head and neck had changed its relation to that of the shaft of the femur in a remarkable manner: instead of having these, respectively, nearly on the same plane, the cervix and head, in relation to the trochanter, formed a line inclining considerably backward; so that they appeared *twisted* from their natural direction. Such indeed, was the obliquity thus produced, that while the space existing between the articular edge of the head and the base of the trochanter major behind, measured barely three-eighths of an inch, before it extended fully to one inch and three-quarters. After due maceration, a section was carefully made, which disclosed a line of union corresponding with that of the exterior, thick and dense towards the circumference, and tapering to the centre, where the cancellated structure had become again somewhat developed. The whole of this part, however, was firmer in texture than the adjacent, as well as the interior of the cervix from the opposite side, which had been removed for the sake of comparison. The right femur presented, externally, a perfectly natural appearance in all its relations. When prepared and divided in a similar way, the contrast with its fellow was remarkable; the cancelli were free and open, and the external compact texture comparatively unsubstantial and delicate.

My belief that the foregoing case represents an instance of reunion of fracture of the cervix femoris within the capsule, rests upon the following grounds:—

1st. The mode and immediate results of the accident, together with the progress of the case.

2d. The state of the capsular ligament and synovial membrane.

3d. The shortening of the neck of the bone, the irregularity of its surface, the change of relation of its axis to the shaft, and the depression of its head.

4th. The similitude of appearance which is apparent in the section, with what exists in other bones after repair of fracture, of even shorter duration; of which a careful comparison has been made of various specimens in my collection.

5th. The contrast which it presents to the opposite femur; which would seem to indicate that no general agency, especially the effects of old age, had been in operation to produce the change described.

Thus I leave the case, and shall be most happy to show the specimen to any of my professional brethren who may feel an interest in examining it.—*London Med. Gazette.*

NITRATE OF SILVER IN FISSURED NIPPLES.

To the Editor of the Medical Gazette.

Sir,—In the number of your excellent periodical for the 14th November, 1829, I very briefly called the attention of the profession to the efficacy of the argenti nitras *in substance*, in the treatment of fissured nipples. I have since had further experience of its value in healing those very troublesome ulcerations of the nipple; and I am happy to see that, in your number for the 9th of the present month, Dr. Hannay, of Anderson's University, Glasgow, also bears testimony to its merits. It is, indeed, a safe, speedy, and most efficacious remedy; and though its application is in some instances very painful, the pain is of only a few minutes' duration, and is seldom, if ever, so intense as that caused by the sucking of the child.—I am, sir,

Your obedient servant,

EDMUND BOWDEN,

Member of the Royal College of Surgeons, London; and Surgeon to the Chelsea, Brompton, and Belgrave Dispensary.

135 Sloan-Street, Aug. 11, 1834.

LECTURE ON ANATOMY AND PHYSIOLOGY. BY SIR C. BELL.

Relations existing between the Nervous and Muscular Systems, and Mental and Bodily Expression.

Gentlemen,—Hitherto you know I have taken sure ground; I have gone as far as it was possible for me to be directed by the preparations and the arrangements of Mr. Hunter. But now I must either go on alone and unsupported, or I must move in another circle.

Now I believe that you would rather that I prosecuted the subject of muscular action a little further. May I observe, then, that the muscular system may be considered as that part of the organization of the body which is under the direction of the will by volition, and is used in locomotion; that, again, the muscular system is used in performing all those secret functions which are going on without the cognizance of the mind, and all the secret operations which are necessary to the performances of the animal economy.

Now I wish to draw your attention to this,—that the muscular texture which is so directly under the influence of the mind and passions, which is expressive of the condition of the mind, not by volition, but made evident to the eye by certain symptoms, is brought into action by certain nerves which are intermediate between the internal parts of the body and their external or muscular frame. This may appear to some foreign to our proper subject. Nothing, however can be foreign on this occasion, which is a fair deduction from the facts presented to us by anatomy, a science which is highly cultivated only when we observe *all* its relations. If you find an interest in attending even to the number of bones in the wrist and the foot; nay more, if you find that you form as it were another science, by an attention to the minutiæ of animals, you will not consider that time to be lost which is spent in analysing the relation established between the corporeal frame and the mind itself, the more especially as this is, in fact laying the foundation of the doctrine of sympathy, or the doctrine of symptoms, as I should more correctly express myself. For how are we to be alive to all the changes in the body, and all the variations of form in disease, unless we are familiar with the condition and relation which are established between the nerves and emotions of the body.

I will give you a familiar instance in illustration of my view. I had bought a horse, and driven it to the door of a patient, who was looking out of the window, and who, on

seeing me, said, "How long have you had that horse?" I told him that I had bought it a fortnight since. Then said he, "you have made a bad bargain in it, for he is not sound." "How can you presume," said I, "to say so, for you have only looked at him from a distance?" "True," he replied, and I pressed him to tell me how he knew the state of the animal. "By its breathing," he said; "by the inflation of the nostrils." I was then satisfied that he was wrong in his opinion, for I found that I had not driven him in his own collar, and that he was only restrained in his respiration, and not unsound in his lungs. But I was well pleased to find that knowing gentleman judged of the condition of the lungs by the action of the nostril. I have seen the same kind of thing in the hospital. Going into the hospital, and finding nothing amiss, nothing to do amongst the patients, I have inquired if they were all going on well, and have been told that everything was right. But, on looking to some one man, I have found that although he was almost totally enveloped in bed-clothes, yet that there was an unusual expression observable in his nostrils, and on looking to him more narrowly, I found a trembling of the lips. I have then said to myself. "Why, this man cannot be well: this is not the condition of a person in repose: he has nothing to alarm his mind, therefore this must be an indication or a symptom of something wrong!" If you go up to the man on such an occasion, and ask him how he is, you find that the voice is affected,—that he cannot speak to you. If you make him draw in his breath, you find at once where is the seat of complaint; you put your finger to the place, and discover that condition in which the lungs are going rapidly into a state of hepatization, in which they are fast becoming to resemble liver. Now I certainly believe that the course of reflection we are upon to-day, although it may take us, apparently, a circuitous route, will lead the mind to be more alive to little circumstances which would otherwise escape observation.

We find that some men are observers, as it were intuitively; that they can mimic their fellows; that some can depict the passions, and others describe them in words. You must have found some, who, apparently without particular attention or study, have the power of mimicry; so that when a person goes out of the room, the mimic can throw himself into his very attitude, assume his manner of speaking, and almost his manner of thinking. Just in the same way you find another man with genius (we call it "genius," as if it were something intuitous), who does not appear to be a more accurate observer than others, who yet, with the pencil in his hand, represents on canvas, the nature, the form, the attitude, and the expression of another, so faithfully as to arouse the sympathies within you, and compel you to say that that man has the same talent as the first, but a different mode of showing it. So, again, while others cannot mimic, cannot use the pencil, know nothing of drawing, yet they can in words, with a pen, represent things as naturally as they are exhibited on the stage, and thus call forth the sympathy of all mankind.

Now this is not intuitive; this ought not to be called the effect of genius; it is the result of a close, minute reiterated observation, and the only difference is, that it is not labor to the man who can accomplish it. He likes the pursuit, he indulges in it, he repeats it. That is the difference between such a man and a man who does not readily effect such results. Now I conceive that something artificial may be done towards communicating to you the right principles, as it were, for unveiling the powers of your mind, towards making you observant of all that passes in your own circle, the very expression, the very attitude of others, and leading you to that sort of acumen at last, which makes you better physicians, better observers of the influence of disease on the body. This is my excuse for taking up this subject, which seems to lead us from the common course of observation, but in the present course I trust I shall be able to show the influence of the bodily frame upon the mind, as well as the influence of the mind upon the bodily frame.

This, on a superficial view, would appear to be something like supporting materialism, and therefore I conceive my safest course is to draw your attention, in the first instance, to the influence of the common organs of sense. You will find, by attending to this subject, that an idea is produced in the mind by a certain condition, or a certain change in the organs of sense,—that is to say, when an object is visible, when the rays of light have been reflected from an object to the eye, there is nothing conveyed into the nerve itself, but an impression only is made upon it. Now the common idea is, that something is carried along the nerve, as if something had been actually received there, and yet those who have studied this subject most carefully, who have been great discoverers in science, and on that account must be depended on for their accuracy, have said that the nerves are unhandy engines for carrying ideas, that there is, in fact, nothing received when the outward organ is impressed, and therefore that the occurrence of an idea in the mind results from a relation established in nature, by the Author of our being, betwixt the intellectual principle within us, the brain, the nerve, the outward organ of sense, and the qualities of things externally. We can come to no other conclusion than this, that there is a relation established between certain things, but what the nature of that relation is we cannot say. Yet of this we are certain, that nothing is *received*. Well, then, if nothing be received, there must be a change in the organ, in the nerve, in the brain itself, and an influence at least produced upon the intellectual principle itself. If, then, every impression upon the hand, every impression upon the eye, every impression upon the ear, though seeming to us at first to be something received from without, be proved only to be a change in the organ itself, we shall be less surprised at finding that a certain condition or emotion of the mind results from the state of the body, and that the corporeal frame is, as it were, a great organ influencing the mind, and intimately influenced by it.

The first step, then, of this demonstration, if I may give it that important character, is to show how the vital organs are sustained together, and to show the influence of these vital internal organs, first upon the exterior muscular apparatus, and then the mind.

Accordingly I have before me a demonstration sufficiently minute for that purpose, and you cannot think how anxiously a person in my situation desires to have, as it were, a point, a rest for the mind, in the shape of a demonstration. But I much fear, after all, notwithstanding the nicety of the present dissection, that I shall make little of it; that is to say, I am not convinced that you will see it well. Therefore, however nicely the dissection has been prepared, I must ask you in place of it to look upon the rude sketches before you. You will understand that we have here a representation of the viscera of the thorax, the heart, the lungs, the stomach, the trachea, the larynx, and the pharynx. Now what I particularly wish to draw your attention to, is the eighth pair. We ought, indeed, in the first place, in studying this nerve, to consider its just relation to the viscera. Here comparative anatomy comes to our aid, to prevent us from forming incorrect notions. I say it is an incorrect notion to suppose that the nerve leads off from the brain, and conveys all the energy of that organ to the parts led to, because I know full well, by tracing from the lower animals to the more complex, the powerful operation of the circulation and of respiration, where there is no such nerve, no such source of nervous energy in the head, in fact, at all.

The reflection naturally occurring from this (and we shall have occasion to recur to it more than once) is, that in the lower animals the nervous energy lies in the part or organ itself excited, and there is no reason to suppose that the fact is much otherwise in the higher animals. We naturally say, therefore, "Why this cord—the spinal marrow?" This leads to the supposition that there is an established relation between certain parts, between which this is the agent of communication. In fact, the great engines of circulation and respiration, the great organ for the first step of assimilation, are all connected

together; not grouped together, nor united by juxta-position, but connected through a nervous energy. I believe I ought to verify this statement, though I know with regard to most of you, that it is unnecessary for me to do so. The best way to establish the point is, to consider the case of a person apparently drowned. The person is taken out of the water without breath, without action of the parts concerned in breathing, without pulse: the mere dilitation of the lung, its repeated action, will bring on the action of the heart. Were it not so, there would be no possibility of resuscitation, because this first action of the heart does not cause a decarbonization of the blood, does not bring arterial blood into the heart through the body. All that it does at first is to restore a sympathy between the action of the heart and the lungs, when, by repeating for a certain time the inflation and compression of the lung, the pulse returns. We find other instances of the heart coming into action after the lungs. You know the common experiment with a frog. If it be rendered apparently insensible and motionless, on being immersed in a respiratory gas, the heart, being pricked with the point of a needle, begins to act, and, according to its nature, acts two or three times, when, being again pricked, it renews its action, and presently, after it has so acted, the breath returns, and respiration takes place, and when the animal has respired once or twice, it turns over from its back to its belly and leaps. Here you see the sympathetic action of the lungs drawing after it the action of the heart, and then again the action of the heart drawing after it the action of the lungs.

The experiments of Mr. Coleman in his early life, tended to show that if a narcotic medicine were in the stomach during the attempt to perform such experiments, the attempt did not succeed, implying that those three organs, the lungs, the heart, and the stomach, are closely connected, not merely by proximity of situation, but by being supplied by the same pair, the par vagum, which lies by the side of the pharynx, giving off the pharyngeal branches. Coming to the larynx, it gives off the laryngeal branches. Coming down to the thorax, it sends down the recurrent under the arch of the thorax, which course removes the particular interest attaching to it, because so long as it continues to run from its source, distributing its branches, there is no intricacy about it, nor is there any call for its minute study. But you next find the nerve taking a circuitous course, the branches running up together, and it now becomes a fair subject for close examination, a fair subject for inference. Here we have occasion to speak of a point which I have already once made the subject of remark, viz., the action of the trapezius muscle. We had reason to conclude that this muscle acted in the process of respiration, and in restoring exhausted respiration; but no part of it acts without being stimulated, or without some relation being established between it and other parts. Well then, here is the nerve running down to the root of the lungs, about to expand on the lungs, but not before it sends circuitous branches back to supply those parts which are necessarily drawn in in the regular act of breathing; the frame, were they not so drawn in (one branch being kept irregularly or imperfectly excited), suffering spasm, and suffocation being the effect. Now the nerve comes down into the chest, one passes to the lungs, where it throws out little branches, which unite again, and so are distributed to the heart. Some persons formerly said that the lungs were not sensible bodies. No, they are not very sensible. So again has it been said that the heart is not sensible, nor is it so in the common acceptation of the term. We know full well that when Harvey put his hand to the heart of a young nobleman which an injury had laid bare, the youth did not know that the organ was touched; he did not know that they were handling him at all unless they touched the external integuments. Thus it appears, in a common parlance view of the matter, that the heart is insensible. But is that the fact? We know that we cannot rise from our seat without a certain increase of the pulsating artery, nor can you accelerate your pace

homewards without a corresponding acceleration of the action of the heart itself. In short, knowing that the heart is connected with every important vital organ, and affected by every condition of the body, you must be prepared to understand that the heart is acutely sensible to the influence of the mind, when laboring under passion and when in motion.

The parts within the thorax being thus connected with the stomach, they have a relation to the parts external, to the moving parts, and yet there are no nerves going out from the centre straight to the circumference,—no nerves strictly in union between the lungs, the heart, the stomach, and the exterior muscles. We must therefore go back to where the par vagum reached the throat, and see what other nerves there may be coming down from the neck deviating only so far as they go to the muscles externally, instead of the parts internally. Here is a sketch which will bring to your recollection the number of powerful muscles that act in moving the chest. We have here, for example, the sterno-cleido-mastoideus, which is a muscle of the head; but if the head be fixed, it is a powerful muscle for raising the sternum and dilating the chest. We come down here again to the pectoralis major, a powerful muscle of the arm. Change the origin to the insertion; make the insertion the fixed point, and then the origin becomes the insertion,—that is to say, instead of moving the arm it dilates the thorax. Then we come round to this powerful muscle, the serratus major anticus, spreading like a hand upon all the ribs, taking its digitations from the movable ribs, then forming a fleshy belly which runs under the shoulder and scapula, to be inserted into the basis of the scapula, and is a muscle of the scapula and shoulder; but if the shoulder be fixed, it is a muscle of the thorax. Thus you will observe, that if the two parts be fixed, that is, the head above and the shoulder at the lower part, all those muscles which are muscles of volition and ordinary motion of the extremities, become muscles of respiration.

I beg your attention next to the trapezius. If we require the head to be thrown back and fixed, this is a powerful muscle for that purpose. If we require the scapula to be thrown back and fixed, that is the direct office of this muscle. So, then, this muscle, though it is not a muscle of the head, yet by fixing the head and shoulder it makes those parts the points from which the other muscles go off as from an origin, and this becomes a powerful muscle of inspiration. Indeed it is very much worth your observation, that nature, both by the distribution of the nerves and the application of powerful muscles, seems more anxious, if I may so speak, to give freedom and fulness to inspiration than to expiration. Your own feelings and observation point out this, that in all anxious states of breathing, in all excited conditions of the lungs in inspiration, the act of difficulty is the dilatation of the lungs. The elasticity of the parts, the compressibility of the whole, seems sufficient to expel the air.

Now, reviewing these muscles, let us attend to their action. The jockey is well aware that if he wish to ascertain the healthy condition of the lungs of the horse, he must give the animal a smart blow, when an immediate and powerful inspiration is made, so that inspiration in that case is the immediate effect of alarm. It is the same with man; if we are startled by any thing, an instantaneous extension and dilatation of the chest takes place. Now this surely is not an accidental thing; for you will see at once that if there be a condition of alarm, and a state of preparation of the body for avoiding the object of alarm, or for struggling against it, or defending ourselves, this is necessary to the force of the extremities. You may remind me, perhaps, that if a man cut his throat, the moment he has opened the trachea below the muscles of the glottis, the thorax subsides, and he feels as if struck with death, so feeble are his motions. Experiments of this kind have been made upon animals. If you open the trachea of a dog and throw him into a ditch, he will try to swim across, but he cannot do so, and sinks. But there is a preparation for

action; the chest is dilated, and, being dilated, the muscles of the glottis keep it so, and give freedom to all the muscles of the chest, so that they are not, for the time, muscles of respiration but muscles of the arm. The thorax is full, the muscles are placed in a position for the greatest possible action at the further extremity, and the whole animal is therefore in a state prepared for exertion.

What is the condition of a person in a state of asphyxia? See a man laboring under asthma, and at once you are led to understand his position. He does not stand upright, but leans upon the table, or rests his elbows there. He seeks in some way to make the shoulder the fixed point, because his alarm has obstructed respiration, and he calls in the whole muscular system to assist in effectively aiding the dilatation of the chest.

The next point that I would advert to—and this is purely professional—is the agency of the arteries. You know that the lungs and the arteries are occupied in one office, to produce and convey vital arterial blood into the system, to supply all the different functions, powers, and endowments of life. These are but two parts of one object—the one the preparation of the blood, and the other its propulsion. When, therefore, a person is losing blood, he labors often under a symptom as if he would suffocate; he labors in his breathing; he heaves the chest; he has all the characters of anxious breathing; you see it in the workings of the chest, the elevation of the shoulder, the action of the heart, and the inflation of the nostrils. He exhibits extraordinary paleness, not merely becoming colorless because he is losing red blood fast, but because he is obviously laboring under the influence of difficult and alarmed respiration. There is a natural excitement of the respiratory organs attendant on the draining away of blood. Call to mind the figure of the dying gladiator. There we have the action of a man who is wounded, and from whom there is a draining of blood. The instrument which has wounded him is at his side. I beg your attention to the particular manner in which he lies. This statue is indeed true to nature, the best proof of which is, that it has been spared in all ages, as well by those savage nations that made inroads upon Rome, as by the refined nations and citizens of our own age. There must be something very true to nature where every one acknowledges the beauty of expression. The gladiator lies half recumbent, resting upon one hand, with the other upon his knee. Notice the condition of the shoulder; he feels that in the draining of blood there is a call upon the act of respiration. If it have ever been your lot to see a man dying in this condition, you must observe that he clings to his assistants, hangs upon those who are really holding him up, and the shoulder is raised; all the muscles are in violent action, the chest is greatly dilated, and in that condition he labors until death actually takes place, and he falls, relaxed from his hold.

Look, again, at the group known by the name of the Laocoon. The artist, a man of fine and sensible imagination, has contrived to make the Laocoon restrain the expression of his pain, and with what admirable propriety! The whole group, indeed, has met with admiration. The true explanation of the restraint is to be found in the relation which the muscles have to the arm and the chest; they continually act in such manner that you cannot dilate the chest and move the arm at the same time. You must have observed that in wrestling or in any other condition of great exertion, it is impossible for a man to breathe during the action, nor is the voice audible. It is in the intervals of powerful action only that the voice is to be heard. The Laocoon has been entwined by the serpent, and is endeavoring by the most powerful exertion to tear the serpent from him. During the period that the arm pushing off the offensive animal, it is impossible that he can speak, on account of the necessity to which I have before alluded; namely, because the powerful muscles which dilate the chest are now engaged in moving the arm. Hence the condition given to the figure. The artist, you perceive, is rigidly true to nature, and most powerful in the expression of character. The most surprising thing in the contin-

deration of this subject is the accuracy which we all display in judging of what is natural in portraiture,—in judging of what we see, and acknowledging it to be rightly expressed, without knowing how. It reminds one of an actor in a tragedy. Some of you perhaps may recollect Mrs. Siddons in some of her finer scenes, where the poet leaves her to her own conceptions and depiction of a character while asleep, in which seeming state she continued to move the hearts of every one beholding her. In the deepest characteristics of sleep there is occasionally, and was expressed by Mrs. Siddons, the convulsive throb through the whole frame, the action of the platysma myoides of the neck, a swelling of the nostrils, a movement of the lips, and a little obvious respiratory action. It was not so remarkable that she represented these effects, but that every one of the thousands who beheld her should feel the chord of sympathy vibrating in his own heart. It is remarkable that mankind should be so held together by sympathy. In the Laocoon, again, how evidently silent is the victim! The artist is in this, too, still true to nature, for who could cry out in receiving a mortal wound? The whole of the parts are in agony; and under the influence of approaching death it would be highly unnatural for an actor, who had reasoned on nature, to cry out at such a time.

So far with regard to the mere muscles,—the connexion simply between the muscles of the thorax and the muscles of the arm; but those muscles, which are an outward apparatus, though an organ of respiration and expression, have no direct connexion with the ribs, with the parts below. If, however, you trace back the par vagum to its source, you will find that there are other nerves coming down from the medulla oblongata.

Here is the phrenic nerve, acknowledged to be a nerve of respiration, which excites the diaphragm, the most important muscle in all the vital economy, into contraction, just at the moment of the dilatation of the chest in respiration. There is another nerve very near it, the external thoracic, which passes across the other nerves, but has nothing to do with them, and there are the intercostal nerves, running to the muscles. One would naturally say, why should there be two sources of nerves? Here are two, one running from the intercostal spaces to these muscles, and another running down from the neck, for the purpose, I should allege, of bringing this powerful muscle, the serratus magnus, into combination with the diaphragm. I observed that this was a powerful muscle of inspiration when the head was fixed, the sterno-cleido-mastoideus muscle drawing up the sternum and dilating the chest. These muscles, connected with the neck, have no power unless they are inverted, and their insertion is made their fixed point. Now if there be a stimulous acting on the trapezius, it draws back the head, draws back the shoulder, and gives a fixed point for the insertion of these other muscles, and therefore throws them all at once powerfully on the ribs as muscles of respiration. These nerves run down their course, the other nerves also uniting at their roots, both for the purpose of uniting these muscles into one combined action, and connecting those muscles with the internal viscera and their sensations.

But, perhaps, you have been thinking, how can this affect the process of respiration, such various actions being assumed in various conditions of the lungs? The condition of the heart and lungs is one thing, and produced by certain distinct nerves, but how is all this external part to be put into action? There must somewhere be a relation established between the external part and the internal, by which means the impressions felt within hold correspondence with the action without. Take an example from the passions, whether of grief, laughter, or fear. There is a species of expression of which you can easily comprehend the phenomena, that, for instance, of terror. When a man is terrified, you comprehend a great deal from his expression. You see that his eyes are fixed on the object of his alarm, you understand why his eyes roll and are largely uncovered, you know by his motions that he is in a condition of fright, and anxious to run from the object

of it. All this is easy to the comprehension; it exhibits the direct influence of the mind on the body; the man is intent upon the object before him, he is prepared to escape or to defend himself, which is natural enough, but you probably do not know why his shoulder is so elevated, or his chest is so dilated that he cannot breathe,—why there is that awful condition of all the respiratory organs which prevents him from propelling his breath freely,—why he is cut in his speech and cannot utter a word,—why there is that extraordinary paleness, that blanched cheek and livid lip,—and far less why there is that convulsion of the neck and throat, that inflation of the lips and nostrils, so peculiar on an occasion of terror. But if you observe the knocking at his side, if you notice that the condition of his mind is obviously influencing the action of his heart, obviously influencing all those viscera that are grouped together, you discover that they must have an influence on these muscles, and that an excitement is first produced internally, and then reflected on the muscles of respiration, by which he is thrown into all the apparent agony during which the respiration is obstructed, and the speech is checked. You have another proof of the source from which this expression arises in the circulation, evidenced by paleness and coldness of the surface. By thus following up the appearances presented by the passions, and studying their source and relations, you acquire not only a new interest in an old subject, but you really have new means afforded you of increasing your acumen in discriminating the symptoms of disease. I will go on with this subject a little farther at the next lecture.

LITHOTRITY.

To the Editors of the London Medical and Surgical Journal.

Gentlemen,—As lithotrity is becoming more generally adopted throughout the country, the following narration of the singular train of symptoms which succeeded this operation may not be unacceptable to many of your readers. The appearances after death show that it superinduced, in this patient, sympathetic irritation, and increased vascularity in the mucous membrane of the alimentary canal; and, though every care was taken to subdue the mischief, it extended so far as to baffle all our remedies. It was my wish to have transmitted a more brief account; but, as the patient was under treatment two months, I found it impossible to shorten it without destroying some of its most important features.

I am, gentlemen, your obedient servant,

THOS. ROBT. TATHAM, Surgeon, Huddersfield.

Late Surgeon to St. Mary's Parish, Nottingham, and its attached Hospital and Dispensary.

March 18, 1834.—Benjamin Hirst, aged fifty, near Huddersfield, of corpulent habit, has been suffering from a calculus in the bladder upwards of seven years, and during nearly four of the latter period confined to his bed, says he cannot alter his position, or sit up in a chair without causing much aggravation in the symptoms, as irritation at the neck of the bladder, and darting pains to the glans penis; for the last year and half he has had frequent desire to make water, and cannot retain more than four ounces of fluid at once without an irresistible desire to void it; the urine presents a little mucous deposit; general health upon the whole tolerably good; pulse 100. Upon inquiry, I find he has been under several practitioners in the neighborhood three or four years back, but owing to his obesity they deemed it advisable not to perform the operation of lithotomy.

Mr. Valentine, surgeon, Nottingham, who has successfully performed lithotrity seven or eight times, having apprised me that he intended operating this morning at Wakefield, I took the opportunity of witnessing him operate on a man sixty years old. I was so

satisfied with it, that I requested him to accompany me to Huddersfield to see Benjamin Hirst, which he kindly acceded to.

Mr. V. succeeded in injecting six ounces of tepid water into the bladder, when he called out from pain of distension; it was as much as he could bear. He then introduced the percuteur, immediately caught the stone, which he simply broke with a few strokes of the hammer. The whole of the operation did not exceed five minutes. The patient showed much irritability of the bladder, and had involuntary dribbling of water during the operation.

19th A. M. Passed a restless night; perspired freely; complains of much soreness and heat in the bladder, and pain in making water: aching pains in his loins: headache, which he attributes to want of rest: surface natural: appetite unimpaired: pulse 112; discharged upwards of a quart of water, colored with blood. A saline effervescing medicine was directed to be taken every three hours, and ʒss. of carbonate of soda with 1 gr. of opium three times a-day.

21st. Much the same; required bleeding from the arm and opening medicine; scarce any detritus passed. Removed the following day to my house.

27th. Better; pulse 110, soft: urine still shows a cloudy mucous deposit; bowels open. Operated this morning in the presence of Dr. Walker and Mr. Robinson, physician and surgeon to the Huddersfield Infirmary, and Mr. Sargent, surgeon. I succeeded in injecting seven ounces of warm water. The first portion of stone I seized measured an inch and a quarter, the second an inch and a half, on the scale of the instrument, which required repeated strokes of the hammer to break, and appeared extremely hard. He seemed to bear the operation quite as well as before. To repeat the saline medicine every three hours, and the soda with opium three times a-day, tea and gruel. P. M. Complains again of pain in his loins, heat and soreness in the bladder and perinæum. Passed a pint of bloody urine.

28th. Had a tolerable night: sweat freely; pulse 116. Complains of soreness about the navel, and a disposition to strain at stool. Bowels not open; urine is free from blood; no detritus come away. To continue the soda ʒss. without the opium three times a day.

Ol. ricini, ʒvj. H. s. s.

29th. The castor oil operated freely. Tongue covered with a whitish fur; thirst considerable: had a severe rigor at noon, which continued three quarters of an hour, soon afterwards he was bathed in a profuse sweat; pulse 130: soreness of the navel gone, increased pain across the loins; heat and soreness of the perinæum and bladder much the same; urine less in quantity; no particles of stone have yet passed. Dr. Walker saw him at four o'clock, and wishes the following to be given: thinks I had better wait a little before abstracting blood; recommends a poppy head and camomile fomentation to be used twice a-day.

℞ Potass. carb. ʒiiss.
Potass. nit. ʒj.
Aqua ad ℥ ss.
M. ft. mist. alk., de qua capiat. ʒj. cum mist. acid. ʒss, 3tiis horis in actu effervescentiæ.

℞ Acid. citric. ʒiss. aq. ad ʒiv.
Fiat mist. acid.

℞ Calomel. gr. iij.
Pulv. ipecacuan. gr. x.
Fiat pulv. sum. nocte maneque.

30th. Had a restless night: perspirations less copious; pain in the loins continues; bowels open; parted with several fragments of a tolerable size on going to stool.

31st. Tongue loaded; thirst considerable; surface cool and dry; has tenderness in the pubic region; pain in the loins about the same. Made near two quarts of water since last night, with a deposit of ropy mucus. P. M. Four o'clock. Flushed countenance; headache; increased thirst; pulse 130, full, and hard; surface hot and dry. Continue mist. sal., et adde liq. antim. tart. ℥iiss.

V. S. B. ad ℥xviij., blood very sizy and buffy.

Dr. Walker recommends the application of sixteen leeches to the hypogastrium, and the following pills:—

℞. Calomel. gr. ij.
Pulv. opii gr. ss.
Fiat pil. sum. 4tis horis.

April 1st. Had a better night; heat natural; pulse 126; less pain in the bladder; not so much tenderness on pressure. Made a tolerable quantity of urine, tinged with blood and mixed with much mucus. When the urine is entirely drawn off, it adheres to the vessel with considerable tenacity. Bowels open.

3d. Suffers from irritation at the neck of the bladder from frequently getting up to stool; pulse 108; surface cool; no tenderness in the hypogastrium; parted with another fragment. He omitted all the medicines as soon as he found the looseness to come on. To omit the calomel and opium, and the nitre in the saline medicine.

℞. Pulv. cretæ c. cum opio, ℈ij.
Sum. 3tiis horis si opus sit.

7th. Urine slightly fetid; pain across the loins continues; less pain in making water; complains of thirst, and has a relish for beer; in consequence I have allowed him a glass to-day. Continue mist. effervesc.

9th. Tongue coated, dry in the centre; no appetite; pulse in morning 108, but at night nearly 120; pain in the loins abating; bowels confined.

℞. Ol. ricini, ℥vj. statim sumend.

10th. Bowels freely moved; appears rather better. Omit the saline medicine.

℞. Quinin. sulph. gr. iij.
Fiat pil. sumend. ter die.

To be allowed meat daily and a glass of beer.

22d. Continues to do well; pulse 108; required occasional doses of opening medicine; deposition of mucus continues, though less viscid; fetor of the urine has been absent several days; it has been tested with litmus paper by Dr. Walker and myself several times; which it reddened; no fragments have come away lately.*

23d. Operated in the presence of Dr. Walker, Mr. Robinson, Mr. Wrigley, and Mr. Highley, surgeons. I injected about seven ounces of warm water, as much as he could bear, and succeeded in breaking up seven portions of different sizes, the largest of which was rather more than half an inch in diameter. I once laid hold of a large portion measuring an inch and a half by the scale of the instrument, which, with one stroke of the hammer, flew from its teeth. I then contented myself with taking up moderate sized portions, which I could readily seize without giving much additional pain. The time occupied in breaking up the fragments, might be from ten minutes to a quarter of an hour. The patient showed his usual irritability, and in the breaking of the last portion became rather faint. A little wine was given him, and when put to bed, a dram of tinct. opii. Afterwards he became very hot and flushed, sweat profusely for three hours; the

* At a consultation with Dr. Walker, Mr. Robinson, and Mr. Sargent, this morning, we consider the patient in a fit state to undergo another operation; and are also of opinion that the late severe symptoms have been produced by the presence of large angular portions, which create irritation; and that the stone should be broken as much as possible during the next operation to allow of its free passage.

water injected into the bladder was retained during that period. P. M. Eight o'clock. Surface natural; pulse 126; tenderness over the pubes on pressure, and has frequent stinging pains to the end of his penis, with desire to pass his water; makes with difficulty two ounces at a time; he has parted with a pint since morning, highly colored with blood, a small quantity of detritus came along with it. A bran poultice was applied over the pubes, four grains of calomel with one of opium at bed-time, and a simple saline effervescing mixture every three hours.

24th. Had a tolerable night; pulse 114; found relief from the poultice: still has much difficulty in passing his urine; made twelve ounces last night, less tinged with blood; there is the usual ropy mucous deposit, which when washed in clear water assumes a flocculent appearance, like films of floating membrane. Repet. bol. cal. et opii. h. s., et cataplasma.

25th. Appears to be doing well; pulse 108.

℞. Ol. ricini, ℥ss. statim sumend.

27th. Had a bad night; countenance flushed and languid expression; tongue becoming furred; much thirst; surface hot; pulse 124, thready; tenderness increased in the hypogastrium; pain at the neck of the bladder about the same; mucous deposit very tenacious, similar to the brown sputa in inflammation of the lungs, it clings to the bottom of the vessel when inverted, and is become lately more viscous; complains of aching pains and soreness in his limbs; no large fragments have yet passed; bowels confined.

℞. Pulv. rhei, ʒj, s. statim.

Dr. Walker concurs with myself in bleeding him to ℥xvj. and to get him speedily under the influence of mercury.

V. S. B. ad ℥xvj., blood very little inflamed.

Two scruples of strong mercurial ointment to be rubbed in night and morning. Tea and gruel.

28th. Restless through the night; much thirst; frequently sick; says he vomits the effervescing medicine; heat natural; complains of a diffused soreness all over the belly; bowels not yet moved. To omit the saline mixture.

℞. Magnes. sulph. ℥iss.
Ess. Sennæ ℥iss.
Tinct. jalap. ʒj.
Aq. menthæ pip. ad ℥iss.
Fiat haust. statim sumend.

29th. Had five copious motions yesterday; feels very low and faint; frequent sickness and hiccup; complains much of tormina and tenesmus, which have increased the irritation at the neck of the bladder considerably; gentle perspiration; pulse 104; motions a natural and healthy appearance; urine becoming fetid. To omit the mercury. Chalk mixture with tinct. opii ordered to be taken every four hours.

May 1st. Diarrhœa still troublesome; gums sore; parted with more fragments.

2d. One o'clock. A. M. During the last six hours the diarrhœa has been very severe; says he has been up six or seven times; dejections of a brown watery appearance; countenance pale; frequent sickness; sweats profusely; pulse 120, small; feels very feeble and sinking. Continue mist. creta 3tiis horis. Eight o'clock, A. M. Says he thinks he has been up to stool twenty times since I left him this morning. The food which he took yesterday is come away without undergoing any change; lumps of hasty pudding, orange pulp, gruel, bread, &c. are readily detected; countenance much sunk; sickness and hiccup more frequent; much thirst; still sweats most profusely, pulse 112, feeble; three fragments are passed; says that he parted with many more whilst at stool.

℞. Tinct. opii. ʒiss.
Aq. menthæ p. ℥iss.
Fiat haust. statim s.

℞. Ext. hematoxyli, ʒij.
Creta ppt. ʒiiss.
Tinct. opii ʒiij.
Mucil. acaciæ ℥j.
Syr. simp. ʒiij.
Tinct. catechu. ʒvj.
Aq. menthæ p. ad O ss. M. ft. mistur.
Capiat ʒj. 3tiis horis.

Ten o'clock P. M. Retained the laudanum draught, and was neither sick nor purged till after two o'clock, vomited twice since, and had two brown watery motions, containing fecal matter; cadaverous aspect; nose pinched; thirst and hiccup unabated; slight subsultus tendinum; says he feels a benumbed sensation over the chest; pulse 112; surface and extremities warm; made a pint of urine to-day, which yields a firm viscid mucus; less tenderness of the belly, and of pain at the neck of the bladder. Dr. Walker and Mr. Robinson consider him in great danger; they recommend the following pill:-

℞. Camphor. gr. iij.
Pulv. opii. gr. ij.
Fiat pil. h. s. s.
Continue mist. hematoxyli 4tis horis.

A flannel, wet with turpentine, was applied over the abdomen. To be allowed some sherry wine.

3d. The flannel acted as a rubefacient. I visited him several times in the night; the sweating continued to be very profuse; at three o'clock got up to the close-stool, vomited and purged at the same instant; seemed for a time quite exhausted; hands and feet became cold from exposure. I gave him some sherry wine with another pill of camphor and opium, which induced a more comfortable state. To have wine and biscuit when he feels disposed.

Perstet in usum pil. camph. et opii 4tis horis.

4th. Since one o'clock yesterday morning he has taken a bottle of sherry and half a bottle of ale; some light pudding, &c. Appeared better this morning. Hiccup came on to be very severe at three o'clock this afternoon; during each fit very yellow sour fluid is ejected; says the wine is too strong for his stomach; surface continues warm. Facies Hippocratica; voice altered; pulse 120, weak and fluttering; complains of more pain in making water; the urine presents the mucous sediment in the same quantity, but it is less viscid; on mixing clear cold water with it and stirring them together it produced a turbid mixture, instead of presenting the before-mentioned flocculent appearance, like films of coagulable lymph: it now has more the appearance of muco-purulent matter; passed a large quadrangular fragment. Cont. pil. 4tis horis.

℞. Pulv. opii, gr. vj. Ft. supposit. administrand. h. s.

5th. More tranquil; drinks freely of some new wort (for beer), which he relishes, and particularly desired to have; perspirations less copious; urine scanty. Cont. pil. h. s. et supposit.

7th. Sickness and hiccup now almost constant; surface cooler; had, during the night, insensible discharge of both urine and feces; requests to have a mixture of beer and milk

to drink. P. M. Has vomited three pints of sour yellow fluid since morning. Cont. pil. h. s. et supposit.

8th. Much the same; instead of beer and milk, I have given him a mixture of lime water and milk, which agrees with him.

10th. Had less hiccup and sickness these two days; appetite has been middling; thirst considerable; pulse quick and weak; evacuations pass insensibly from him; dejections yellow, and of a proper consistence. Continue pil. h. s. et suppos. h. s.

In compliance with his frequent request to be taken home, I this morning conveyed him in a covered cart on springs, the bed being placed in for him to lie upon. He bore his journey very well, and seemed not in the least overcome by it. I gave him a dose of laudanum soon after he arrived home.

11th. Says he suffered very little inconvenience from the removal yesterday; slept well; he appears now much in the same state. Mr. Brook, surgeon, a neighboring practitioner, kindly volunteered to attend him daily as long as his services might be required.

12th. Died at five o'clock this evening.

14th. Afternoon. *Autopsy.*—Mr. Brook assisted me in the examination. On making a longitudinal incision from the sternum to the pubes, four inches of thick fat were cut through before I reached the linea alba. The peritoneum, liver, omentum, stomach, spleen, and peritoneal surface of all the abdominal and pelvic viscera appeared healthy, no appearance of inflammation or adhesion of their surfaces; the kidneys were healthy, and imbedded in a large quantity of fat. The stomach was distended with air; its mucous membrane, and that of the duodenum and small intestines, were much injected, and of a diffused uniform redness, and so distinct was it in the jejunum and ileum throughout their extent, as to be visible through the peritoneal covering; there were also patches of red in the ascending transverse and descending colon. The following appearances presented themselves on examining the bladder, in the presence of Dr. Walker, Mr. Robinson, Mr. Wrigley, and Mr. Sargent, surgeons. Its parietes were unusually thickened and cavity contracted; the mucous membrane did not appear so vascular as we anticipated; the superior portion or fundus was pale, and showed scarcely any appearance of inflammation; on tracing its surface downwards towards the inferior portion, we found it to increase in color to a reddish brown, intersected with small vessels of a leaden hue, which thickened towards its neck; the prostate gland appeared redder and more vascular than natural; the bladder contained a little glairy mucus, and a large portion of the calculus of an oval shape, with both ends broken off; it was flattened at the sides, presenting some rough scabrous points on its surface, sufficient to account for much irritation when it rolled in the bladder; it weighed nearly ℥ss, another portion ℈ij., with some small fragments, altogether weighing twelve grains. The entire stone appears to have weighed about six drams.

Mr. Highley, jun., of Elland, has been kind enough to favor me with his analysis of the calculus. Its specific gravity is 1.6. The whole calculus was made up of well compacted laminæ, forming round a central nucleus, each of which seemed to differ slightly in the shade from that which preceded or came after, while the inner was inclined to red; externally it was rough, and had on its surface a thin coating of reddish-brown shade.

Analysis.—Twelve grains of the nucleus and contiguous laminæ yielded nine grains of beautiful, small, white crystals of uric acid perfectly dried, the residue was a mixture of phosphate of magnesia and lime. The outer layer differed from the inner as follows:—

6.5 grains of uric acid.
3.0 grains of phosphate of ammonia and magnesia.
1.5 grains of phosphate of lime.
A little animal matter.

PHYSIOLOGY OF THE VOICE.—MODE OF PRODUCING CERTAIN MUSICAL TONES.

To the Editor of the Medical Gazette.

Sir,—In the last number of the Gazette, Mr. Bishop has advanced some ingenious reasoning to disprove the correctness of Mr. Wheatstone's explanation of Mr. Richmond's musical performance, an account of which I gave in a former number of your journal.

Mr. Bishop admits that the bass sound is laryngeal, but supposes that the production of the higher notes in the performance "approximates most nearly to the common mode of whistling." It is evident, however, that if this were the case, the higher notes might be produced, as they are in whistling, without an accompanying bass or fundamental sound. Now the contrary is the fact. Mr. Richmond cannot produce the higher notes but in conjunction with the drone.

Mr. Bishop further states, that "the higher notes [in the performance] are not necessarily harmonies [it should be harmonics] resulting from the fundamental notes; their relative positions in the scale being under the control of Mr. Richmond's taste." This remark, if true, would certainly subvert Mr. Wheatstone's hypothesis; but there is reason to doubt its accuracy. As far as it could be determined, on the occasion on which Mr. Wheatstone and myself witnessed Mr. Richmond's performance, the series of higher notes invariably bore a definite relation to the fundamental sound; each higher sound being in the relation of a multiple of the bass; and not otherwise under the control of Mr. Richmond's taste, than are the higher notes, in Mr. Eulenstein's performance on the Jew's harp, under his control.

I am, sir, your obedient servant,

HERBERT MAYO.

19 George-street, Hanover-square, July 16, 1834.

ON THE EFFICACY OF THE NITRATE OF SILVER IN GLOSSITIS AND TONSILLITIS.

By James H. Horne, Esq., Surgeon, London.

Experience has fully proved that whatever attention medical practitioners have bestowed in ascertaining the properties of the nitrate of silver for eradicating diseases, and restoring parts to their normal condition, their labor has not been employed in vain. To Mr. Higginbottom the profession are particularly indebted for much valuable information on this substance, but since the appearance of his last work ample time has been afforded for further testing the efficacy of this valuable agent. Some remedies, like fashions, have their day and then decline; but I am satisfied that the more the nitrate of silver is tried, the better it will be found to answer our purpose; and when used externally, and its power over a particular disease has been ascertained, we may prognosticate almost invariably the result. At least, so it has proved in my practice, during some years' trial, and scarcely a day passes without my testing its efficacy in some form or other. As I feel confident that there remains much to be made known respecting it, I shall endeavor to contribute my share to the stock of knowledge, confining my remarks at present to its application in glossitis and tonsillitis.

GLOSSITIS.—*Case.*—In February last I was requested to see a lady, aged twenty-six, of a spare and delicate constitution, who was suffering from a determination of blood to the head, with symptoms of vertigo, dimness of sight, pain and heaviness of the head, stupor, nausea, torpidity of the bowels, and loss of appetite; she had a pulse quick and small, tongue white and furred. Blood to the amount of sixteen ounces was abstracted from the arm, and cooling saline aperients with diuretics combined were freely administered, and perfect rest was enjoined. On the following day the bleeding was repeated, and the same medicines given with great benefit, and by following up the treatment with

diuretics and tonics, my patient for the time being was perfectly restored. At the latter part of the same month, I was urgently solicited to visit her again, when I found her presenting a well-marked case of idiopathic glossitis, caused by fatigue and watching, which had greatly reduced her, so much so that she was scarcely able to raise her hand from the bed. She had first felt the tongue becoming bad on the preceding day, and it got rapidly worse during the night. The tongue I found was enormously swollen, but it did not protrude from the mouth; her respiration and articulation were exceedingly difficult; pulse small and quick; countenance extremely anxious; skin moist and clammy; bowels confined. The nitrate of silver in substance I immediately applied to the tumefied organ. This required considerable pains to accomplish effectually, for the patient could neither open the mouth, nor thrust out the tongue. In the evening the burning heat and pain, which torment the sufferer in severe cases most dreadfully, had returned, and the application was renewed to lessen the heat and to prevent further enlargement. After much difficulty also a saline aperient was forced down. Nourishment of all kinds was refused, from the insufferable torture it inflicted. Next morning both the local and constitutional symptoms were much increased, and having full confidence in the power of my remedy I carefully repeated the application, and, to support her strength, which was now reduced to the very lowest ebb, a tea-spoonful of wine in gruel was swallowed occasionally; but to judge of the difficulty of treatment, the sufferings of the patient, and the anxieties of the friends, this formidable disease must have been encountered by the practitioner. To prevent an unnecessary extension of this case, suffice it to say, that after regularly and assiduously using the nitrate of silver every morning for the space of a fortnight, the tongue resumed its healthy condition, which it has since preserved.

Remarks.—Cases of idiopathic glossitis like the above are, fortunately, rare, and where the patients are not of a robust constitution, I would strongly suggest that the antiphlogistic treatment should not be pushed severely. The local application of leeches and free scarifications in mild cases, I have seen of immense benefit, but the reverse is too frequently the result in alarming cases, and the swelling and suffering will often be found to be increased dreadfully after the oozing of the blood has ceased. A case in point occurred in the early part of the year 1831, in a female, aged nineteen years, apparently of a robust constitution, addicted to spirit drinking, and used to exposure to night air. This patient I nearly lost by carrying the antiphlogistic regimen too far, and too long withholding the use of the nitrate of silver. I find that the remedy should be applied regularly once in every twenty hours, on no consideration allowing the importunities of the patient to prevail against its longer postponement from the sharp-cutting pain it causes, or the benefit obtained will be partially lost, and the cure protracted.

Acute Tonsillitis.—The same satisfactory result from the use of nitrate of silver for the cure of acute tonsillitis I can confidently promise, and will illustrate its superiority over any other kind of treatment by detailing briefly two cases—one occurring in a plethoric habit, the other the reverse.

Case 1.—Mary E., aged seventeen years, remarkably strong and robust, was attacked at the latter end of February, 1832, and came under treatment on March the 1st, when the disease had arrived at its height, occasioning a constant dread of suffocation. A blunt stick of the nitrate of silver was placed over three or four different parts of the inflamed tonsils, and a mild gargle for cleansing the mouth and saline aperients were prescribed, with a diet of thin gruel. By persisting in this plan until the 5th, a complete cure was effected.

Case 2.—S. B., aged twenty, has suffered from frequent inflammatory affections, and has had previously a severe attack of tonsillitis, for which she was bled largely. Very

energetic measures were adopted by her former medical attendant to prevent suppuration, which subsequently ensued, and the patient recovered after four weeks' severe illness. When I was called to her (December 7th, 1833), I found that matter had already formed in both glands, and all the symptoms of the disease were very severe. The nitrate of silver was applied as above, and I ordered the mouth to be frequently gargled with warm water. After two applications of the silver, the glands burst and the matter was discharged; and by pursuing the treatment, in less than a week her sufferings were overcome, though some time was required to re-establish her health.

Remarks.—Suppuration, according to the plans of treatment pursued, is the most common termination of tonsillitis, and, indeed, is encouraged by some practitioners in the early stage of the disease, experience having almost invariably proved the inutility of their attempts to reduce the inflammation by the usual antiphlogistic means. In constitutions which are naturally strong, this practice may be warrantable, but in others, less fortunate in their stamina, very serious mischief may be the result, through the formation of matter in the system.

Chronic Tonsillitis.—This disease, long before it is submitted to medical treatment, will be found, on inquiry, to have been fully developed. In children of strumous constitutions, chronic tonsillitis is principally met with, and it is this condition of the system (for whoever attempts to cure this disease by local applications will only be miserably disappointed, or whoever may recommend any single remedy as capable of effecting that result must expect to be treated with contempt) which must first engage our attention. Having improved that condition of the system, as far as our therapeutic means will admit, and not till then, we may expect to eradicate the disease; and to accomplish this, the nitrate of silver will best answer our purpose, applying it steadily, twice a week, to the indurated glands for some months, when a complete and perfect cure may be expected. I could advance several cases of this form of the disease for further proof of its efficacy, but these would increase the length of this communication, by compelling me to make some remarks on scrofula, to an extent which I must avoid, and I therefore now simply trust that what I have advanced will prove worthy the attention of the profession.

5 Gerard-street, Soho, July, 1834.

SIR GILBERT BLANE.

On Friday last, June 27, Sir Gilbert Blane, Bart, expired at the advanced age of eighty-five.

Of this eminent physician and admirable man it may be said with truth—

Posteritati narratus et traditus,
Superstes erit."

We regret we are unable at present to do justice to the memory of our deceased friend, by detailing the full extent of his public services for half a century. Their beneficial effects will be felt as long as the British navy shall float. We know of no example where a higher reputation has been achieved by the mere exercise of practical wisdom and sound good sense.

The following extract from a recent work by the most eloquent philosopher of our day,* relieves us from the necessity of attempting to explain, in our own words, the nature of these services:—

"It is to such observation, reflected upon, however, and matured into a rational and scientific form by a mind deeply imbued with the best principles of sound philosophy, that we owe the practice of vaccination; a practice which has effectually subdued, in

* Discourse on the study of Natural Philosophy. By Sir John Herschell, &c.

every country where it has been introduced, one of the most frightful scourges of the human race, and in some extirpated it altogether. Happily for us we know only by tradition the ravages of the small-pox, as it existed among us hardly more than a century ago, and as it would in a few years infallibly exist again, were the barriers which this practice, and that of innoculation, oppose to its progress abandoned. Hardly inferior to this terrible scourge on land, was, within the last seventy or eighty years, the scurvy at sea. The sufferings and destruction produced by this horrid disorder on board our ships when, as a matter of course, it broke out after a few months' voyage, seem now almost incredible. Deaths to the amount of eight or ten a-day in a moderate ship's company; bodies sewn up in hammocks and washing about the decks for want of strength and spirits on the part of the miserable survivors to cast them overboard; and every form of loathsome and excruciating misery of which the human frame is susceptible :—such are the pictures which the narratives of nautical adventure in those days continually offer.* At present the scurvy is almost completely eradicated in the navy, partly, no doubt, from increased and increasing attention to general cleanliness, comfort, and diet; but mainly from the constant use of a simple and palatable preventive, the acid of the lemon, served out in daily rations. If the gratitude of mankind be allowed on all hands to be the just meed of the philosophic physician, to whose discernment in seizing, and perseverance in forcing it on public notice we owe the great safeguard of infant life, it ought not to be denied to those† whose skill and discrimination have thus strengthened the sinews of our most powerful arm, and obliterated one of the darkest features in the most glorious of all professions."

We have to add to the facts contained in this extract, all of which are to be found in an interesting pamphlet published by Sir Gilbert in 1830, that, so early as the year 1780, the first year of Sir Gilbert Blane's service as physician to the fleet on the windward station, he presented a memorial to the Admiralty, in which he stated the causes of disease to consist in—

* "Journal of a voyage to the South Seas, &c. &c., under the command of Commodore George Anson in 1740–44, by Pascoe Thomas, Lond. 1745. So tremendous were the ravages of scurvy, that in the year 1736 Admiral Hosier sailed with seven ships of the line to the West Indies, and buried his ships' companies twice, and died himself in consequence of a broken heart. Dr. Johnson, in the year 1778, could describe a sea life in such terms as these :—'As to the sailor, when you look down from the quarter deck to the space below, you see the utmost extremity of human misery,—such crowding, such filth, such stench!' 'A ship is a prison with the chance of being drowned; it is worse—worse in every respect—worse room, worse air, worse food, worse company!' Smollet, who had personal experience of the horrors of a seafaring life in those days, gives a lively picture of them in his Roderick Random."

† "Lemon juice was known to be a remedy for scurvy far superior to all others 200 years ago, as appears by the writings of Woodall. His work is entitled "The Surgeon's Mate, or Military and Domestic Medicine. By John Woodall, Master in Surgery, London, 1636," pp. 165. In 1600, Commodore Lancaster sailed from England, with three other ships, for the Cape of good Hope, on the 2d of April, and arrived in Saldanha Bay on the 1st of August, the Commodore's own ship being in perfect health from the administration of three table spoonsful of lemon juice every morning to each of his men, whereas the other ships were so sickly as to be unmanageable for want of hands, and the commander was obliged to send men on board to take in their sails and hoist out their boats. (Purchas's Pilgrim, vol. i. p. 149.) A fellow of the college, and an eminent practitioner, in 1753, published a tract on sea scurvy, in which he adverts to the superior virtue of this medicine; and Mr. A. Baird, surgeon of the Hector sloop of war, states, that from what he had seen of its effects on board of that ship, he 'thinks he shall not be accused of presumption, in pronouncing it, if properly administered, a most infallible remedy, both in the cure and prevention of scurvy.' (Vide Trotter's Medicina Nautica.) The precautions adopted by Captain Cook in his celebrated voyages, had fully demonstrated by their complete success the practicability of keeping scurvy under in the longest voyages, but a uniform system of prevention throughout the service was still deficient.

"It is to the representations of Dr. Blair and Sir Gilbert Blane, in their capacity of commissioners of the board for sick and wounded seamen in 1795, we believe, that its systematic introduction into nautical diet, by a general order of the Admiralty, is owing. The effect of this wise measure (taken, of course, in conjunction with the general causes of improved health) may be estimated from the following facts :—In 1780, the number of cases of scurvy received into Haslar hospital was 1457; in 1806 one only, and in 1807 one. There are now many surgeons in the navy who have never seen the disease."

1st. The neglect of cleanliness, ventilation, and dryness in the interior economy of ships.

2d. The want of lemon or lime juice.

3d. The abuse of spirituous liquors, as the habitual beverage of seamen.

4th. The want of adequate nourishment and comfort for the use of the sick and convalescent on board of their own ships.

5th. The want of proper bedding and of soap.

6th. The want of a gratuitous supply of medicines, as well as necessaries, to the surgeons, in order to enable them to cure as many as possible without sending them to hospitals.

7th. The defective regulation of hospitals.

We have given this long catalogue, in order to show at what an early period the neglected condition of the navy attracted Sir Gilbert Blane's attention, and how vast an improvement was wrought under his auspices.

In consequence of the high opinion the government entertained of Sir Gilbert Blane's judgment, he was consulted on various public occasions connected with his profession, and, among the rest, was despatched to visit the troops during the fatal Walcheren expedition. On his return, the Prince of Wales conferred upon him the title of baronet. In the fifth volume of the Medical and Surgical Journal, of which this journal is a continuation, we have given some further particulars of his public life.

Sir Gilbert Blane was a licentiate of the College of Physicians. From his rank in the profession, and sterling upright character, he was once happily called—"The president of the licentiates," a designation in which we have reason to know he gloried. The *honor* of a fellowship he would not cringe for, and refused to accept as a favor, to the great abasement of a rival president.

In his public life we know of but one circumstance that caused him a moment's pain. Sir Gilbert Blane was attached to the household of the Duke of Clarence. Upon his Majesty's accession to the throne, an attempt was made—need we say in vain—to exclude the licentiate from the royal favor. Under his Majesty's express command, the marshaler of the royal physicians was ordered to place Sir Gilbert Blane's name (which had been omitted) first on the list; but, by some trick of etiquette (for we presume this is the justification), Sir Henry Halford's occupies that post. Sir Gilbert Blane *longo proximus intervallo* to Sir Henry Halford!

Sir Gilbert Blane, in addition to his medical attainments, was a man of extensive and varied erudition; he was fond of observing and tracing—to use his own elegant paraphrase of Cicero*—"that subsidiary influence and mutual dependence by which all the arts, sciences, and professions have a reciprocal bearing on each other, conspiring to bring about the greatest sum of human enjoyment, and affording a field of contemplation, in which cultivated, benevolent, patriotic, and pious minds delight to expatiate." He lived among great and powerful men, and preserved his simplicity; he won their esteem and commanded their interests for his benevolent purposes, without subserviency or sycophancy. He has left behind him an unsullied reputation.

SCIRRHOUS HYPERTROPHY OF THE NECK OF THE UTERUS—EXCISION—UTERO—PERITONITIS—CURE.—CLINICAL REMARKS BY MM. MARJOLIN AND BLANDIN.

A woman, thirty years of age, a mantua-maker, of middle size, and sanguineo-lymphatic temperament, who had constantly enjoyed perfect health, was admitted into the above

* "Etenim omnes artes quæ ad humanitatem pertinent habent quoddam commune vinculum et quasi cognatione quadam inter se continentur.

hospital, February 3d, 1834, for an affection of the uterus. Catamenia regular, and in natural quantity ; mother of three children.

For two years she has observed small warts, which came spontaneously about the genital organs ; their appearance was not that of syphilis, and they speedily yielded to emollients. States that she has never had the venereal disease.

Her complaint appears, from her statement, to have originated fourteen months since, as at that time she first felt a sensation of heat and weight about the hypogastric region. These symptoms became so slight that she considered them of no consequence. In a few months, however, the heat returned, the sensation of weight became more intense ; leucorrhœa, which she had suffered from childhood, was now much decreased in quantity ; no bloody discharge ; menstruation natural. The patient complains of itching, and internal pricking sensations, heat in passing her water, and frequent desire to evacuate her urine and feces ; pains in the loins and kidneys, which she finds extend to the internal part of the thighs, much increased when in the erect position or in walking, and are greatly relieved by repose in the recumbent position. Coition gives her much pain. The patient believed that she had a tumor growing from the uterus, and requested M. Blandin to extirpate it.

M. Blandin, determined to ascertain the state of the uterus and its appendages, first made an examination per vaginum, afterwards with the speculum. The parts surrounding the external organs appeared perfectly natural. The neck of the uterus was found low down in the vagina ; this examination caused but little pain. There was a slight descent of the uterus, without a deviation of the body of this organ. The lips of the uterus were regular, hard, and resistant ; the anterior more developed than the posterior ; the neck of this organ appeared voluminous, and its texture firm ; the orifice was transversely oval, and lined by some albuminous mucosities. The body of the uterus appeared of its natural volume.

The speculum verified the above state of the uterus. The constitution of the patient was good, but at times she experienced twitching pains about the stomach and bowels. All symptoms sufficiently proved the existence of a scirrhous hypertrophied condition of the neck of the uterus, and the operation for excision of this part was proposed, and performed on the 8th of February.

There is nothing particular in this operation ; it was performed in the ordinary way. The patient was placed and kept in the same situation as in the operation for lithotomy. A speculum was introduced, and Museux pincers were applied to the neck of the uterus, which was drawn downwards as much as possible. The speculum was then withdrawn, and another pair of Museux forceps were introduced in a manner opposite to the first ; the external labia were widely separated, and the neck extended towards them. The operator was situated in front of the vulva, conducted along the palmar face of the left indicator finger, a convex bistoury, with which the neck was excised, without excavating entirely that portion of the neck which was embraced by the upper portion of the vagina, though sometimes this latter is necessary in consequence of the extent of lesion.

The patient manifested during the operation but slight pain, only a few drops of blood escaped, and said afterwards her suffering was very slight. She was put to bed ; no unpleasant symptom occurred. Gummy julep, with the syrup of diacodium (poppy) was ordered, and fomentations were applied to the lower part of the abdomen.

Examination of the extirpated Neck.—Its texture was whitish ; of a close fibrous texture ; hard and resistant, having the exact appearance of scirrhous with hypertrophy.

10. Since the operation the patient has been going on well ; a very slight sanguineous discharge has been observed from the vagina ; pulse rather accelerated ; skin moist, of a natural temperature.

11th. Disturbed sleep; impatience; pulse 108, feeble; frequent desires to pass urine. Catheterism was employed, which gave exit to a few drops of water. Complains of colicky pains about the abdomen. Twenty leeches were ordered to be applied to the epigastrium; cataplasms and emolient injections were prescribed; gum-water, &c., &c.

13th. Pains diminished; skin hot and dry; tongue natural. Medicines continued.

15th. Yesterday pains about the lower part of the abdomen increased; somnolency; pulse 104, tolerably powerful; tensity of the abdomen, for which a copious blood-letting was effected; other medicines continued. To day she complains of dragging pains of the uterus; slight shivering; thirst; vomiting came on about twelve o'clock at night; great agitation; countenance pale; tongue red at the point; pain on pressure about the abdomen; pulse small, 116; skin natural. Fifteen leeches to be repeated on the abdomen; emolient fomentations; injections the same. Bath prepared with decoction of linseed, in which she is to remain for two hours.

16th. Better; all the symptoms ameliorated.

The symptoms continued some days increasing, others diminishing; sometimes accompanied with vomiting, at others with acute cephalalgia; pains about the region of the uterus, bladder, and vagina; all of which symptoms were alleviated by the ordinary remedies. Mercurial frictions were applied on the abdomen, salivation was produced; after which remedy the symptoms lessened in frequency, and by the 31st of March, not quite two months from the operation, she felt so well, that she requested to be discharged, which was permitted her, on condition that she would for some time remain quiet, and abstain from all imprudences.

A conical cul-de-sac was felt in the vagina, also a smooth regular surface without induration, leaving a small central aperture. All discharge had ceased.

This case presents an example of severe utero-peritonitis supervening simple excision of the uterine neck.

All authors coincide that this is the most frequent and dangerous inflammation to be dreaded after this operation. In fact the nervous system is rarely if ever affected, and the operation scarcely ever proves fatal from nervous excitability. As to the occurrence of hemorrhage, in spite of what has been written, and what may still be persisted in by some, it is not in general a formidable complication; and its fatal effects are rarely to be met with, though occasionally, from small and frequent repetitions, great debility and even death is produced.

CRYING OF THE FŒTUS IN UTERO.

To the Editor of the Lancet.

Sir,—I beg to solicit the publication of the following case, which I presume you will deem of sufficient importance to occupy a place in your valuable periodical:—

I was some time since called to the wife of a blacksmith at Preston, about two miles from my residence, who was in labor with her tenth child. I had attended her in several former confinements, and she had always had quick deliveries, as the pelvis was unusually capacious, and her pains were active. After I had been a few minutes in the room, I proposed and made an examination, and found the face presenting, and making its descent into the pelvis, the chin resting on the os pubis.

A few strong pains succeeded, and I again examined to ascertain if the face had made any advance. I found it had done so, and that it was pressing on the perinæum; but in making this examination, my finger passed freely into the mouth of the child, and it immediately gave a convulsive sob, and cried aloud to the great terror of the mother and of the by-standers, when they found that it was still in the womb. I had great difficulty

in calming the agitation produced by this event upon the woman, whose pains were suspended for nearly an hour, but I eventually succeeded by explaining that the face was presenting, and that from the circumstance of my having passed my finger into the mouth, the air had gained admission and enabled the child to breathe; this, with a little spirit and water, and a dose of the ergot of rye, succeeded in bringing on the uterine action, and, after two pains, the child was expelled alive and well, at least one hour after it had respired and cried in the womb. I am not aware that any instance similar to the above is on record, but I consider it one of consequence as a physiological and medico-legal point, and one which will throw additional difficulties in the way of that clear proof which is so desirable in cases of infanticide.

I remain, sir, your faithful and obedient servant,

WILLIAM TOMKINS, Surgeon.

Yeovil, July 8, 1834.

ON THE USE OF COLCHICUM AUTUMNALE IN FLUOR ALBUS.

To the Editor of the Lancet.

Sir,—May I beg the favor of your inserting the following communication on the use of *colchicum autumnale* in fluor albus, in your very valuable periodical:—

Some years since I was desired to visit a lady laboring under a very complicated assemblage of symptoms, and amongst them an aggravated form of fluor albus. She had a pallid countenance, swollen feet, and a profuse discharge, which various remedies failed to relieve. With a view to treat other symptoms, I prescribed the powdered root of *colchicum*, and during its exhibition the patient remarked that the leucorrhœa and œdema of the feet gradually diminished and finally ceased.

Since that time I have treated a vast number of cases of leucorrhœa with the powdered root of colchicum, and I can faithfully add, with an almost invariable success. I commence its use with three grains of the powdered bulb made into a pill with hard soap, to be given three times daily, and I increase the dose to five grains. During the period the patient is taking the colchicum, it will be absolutely necessary for her to abstain from *every* beverage which contains alcohol. Five grains of powdered bulb of colchicum exhibited three times daily, will very generally cure leucorrhœa in ten days. Some cases require its continuance for three weeks, and others for a month. I have several times seen the discharge return after the discontinuance of the medicine, but after further perseverance in its use, I can scarcely recollect a case which finally resisted its influence. Under the hope that it may be as successful in the hands of other practitioners as it has been in mine, I have the honor to be, sir, your obedient servant,

GEO. RITTON.

25 Great Charles-street, Mountjoy-square, Dublin, July 16, 1834.

ST. GEORGE'S HOSPITAL.—CONCUSSION.—ERYSIPELAS.—DEATH.

A man was admitted under Mr. Brodie's care, laboring under symptoms of concussion, for the relief of which he was bled and purged freely with the greatest benefit, when suddenly the arm in which he was bled (the right) became tumefied and painful. To relieve these symptoms the arm was fomented and enveloped in a poultice, and saline medicines were administered, but without much effect. On the following day the painful tumefaction of the limb was increased, and the skin was covered with a vivid blush of erysipelas. It was now evident that the cellular membrane beneath the skin was affected, most probably infiltrated with serum; and to save the skin and prevent the further rapid progress of the disease, Mr. Brodie, in accordance with his usual treatment in such

affections, made several deep incisions down through the skin to set the cellular membrane free; poultices were ordered to be continued, and the patient's strength supported with bark and ammonia, with the addition of wine or spirits with his usual diet, if they were required. This plan was continued for some days, but without any good effect, and the man died.

On a post-mortem examination being made, there were found (as was to be expected) several purulent deposits in various parts of the body.

We regret to add that *erysipelas* is again making its appearance in the hospital, and the cause to which it is generally ascribed is the circumstance of the floors being so frequently washed, the permission for which has been given by the chaplain. Mr. Brodie very prudently remarked that with reference to this, he considered the question more a medical than a *clerical* one.

PROLAPSUS UTERI.—SUB-ACUTE PERITONITIS.

Hannah Salter was admitted into Drummond ward, under the care of Mr. Brodie. The house-surgeon, Mr. Patten, was ordered to examine her (as it appeared that the duty was too delicate a one for Mr. Brodie himself to undertake), who reported that she had prolapsus uteris, complicated with slight prolapsus of the vagina. On hearing this, Mr. Brodie remarked, that in such cases it was usual to introduce a common pessary to support the relaxed parts, and to keep the patient quiet in the recumbent position for a certain time. All this was, no doubt, very good practice as far as it went, but in his experience, he found that the pessary commonly used (which was made of box) generally served to relax the parts; and when it was left off, why down came the uteris as bad as ever; therefore, in truth, the pessary proved of little or no service to the patient. He (Mr. B.) had been in the habit of using a pessary composed of powdered oak-bark, enclosed in a muslin bag, and made to suit the parts accurately in size and shape. The danger or benefit from the use of such a pessary consisted in the astringent nature of the oak-bark, which checked the discharge from the mucus membrane of the vagina, and kept up the uteris in its place, and gave a healthy tone to the parts, which seemed to support it (the uteris) after the pessary was left off.

Such a pessary of oak-bark as the one described was accordingly ordered, and worn by the woman for two days, when she complained of extreme pain over the hypogastric region, with rigors, quick pulse, furred tongue, and anxious countenance. Salines were prescribed for her, with leeches and fomentations externally, from which she experienced relief, still the pain continued, and she was ordered a blister. This afforded ease, but there was still deep-seated pain on pressure. The case was now decided to be one of sub-acute peritonitis (the uterine irritation, probably, induced by the pessary, being entirely overlooked), and was accordingly transferred to Dr. Seymour.

SUBCUTANEOUS VASCULAR NÆVUS CURED WITH AN OINTMENT OF TARTARIZED ANTIMONY.

By W. C. Worthington, esq., Lowestoft.

In a number of the Lancet, published in April last, was inserted an account of a case of vascular nævus, by Mr. C. Hickman, cured by the application of a liniment composed of tartarized antimony and olive oil.

At the time that case came under my observation, the parents of an infant had applied to me for the cure of a subcutaneous vascular nævus, situated on the right side of the chest, just below the axilla, in size a little exceeding a shilling. An insuperable objection was evinced, on the part of the mother, to its removal by excision. In accordance

therefore, with the successful treatment cited in the Lancet, I determined upon trying the adhibition of the tartarized antimony, in the form of ointment instead of liniment.

The surface of the nævus was rubbed but a very few times before it was covered with pustules which soon became confluent, and it was subsequently removed by the assistance of poultices. Granulations soon sprang up, which were now and then smeared with the argentum nitratum. Simple adhesive plaster was then applied as a dressing. The cure is now complete, nothing remaining but a superficial cicatrix.

I consider it due to Mr. Hickman that this cure should, through the instrumentality of your journal, be made known, as I deem it corroborative of the value of that gentleman's mode of treating nævus; and, moreover whenever the situation of the disease will admit of the application of the remedy, I consider it preferable to the several other plans usually pursued; insomuch as, when compared with the caustic, it is more under the control of the surgeon, equally efficient, and more certain in its operation than vaccination, and much superior to the plan proposed by Dr. M. Hall, being less painful and tedious.

HERMAPHRODITE.

On Wednesday, the 18th June, we had an opportunity of examining one of these monsters at the Northern Hospital, Liverpool, where it exhibited itself; and a more singular or disgusting spectacle we have seldom witnessed. The individual was furnished with certificates from various eminent men, both of this country and of the continent, and among others with one from Sir Astley Cooper, stating that it was a good specimen of what is usually called an hermaphrodite, and that he considered it to be a male. It is a native of Saxony, the only child of an officer in the Prussian army, and born in wedlock. The voice and features were those of a man, and the height apparently about four feet nine inches. A light, downy beard covered the upper lip; the mammæ were not developed, and the chest was destitute of hair. The interpreter who accompanied the victim of this extraordinary freak of nature, stated that he was thirty-four years old, that at birth he was considered to be a female, and that he always dressed as such, and wore his hair turned up, until little more than twelve months ago, when, in consequence of Professors Blumenbach at Gottingen, and Tiedemann at Heidelburg, having some time previously told him he was a man, he assumed the male attire.

On examining the organs of generation, no penis was to be seen, but the *scrotum* was discovered, divided along the median line, the two halves resembling the external labia of the female, somewhat pendulous, and each containing a testis. The part corresponding to the *mons veneris* was not very well developed, and was moderately supplied with hair. On separating the halves of the scrotum (or labia external), the *glans penis* came into view, resembling a large clitoris, and in the natural situation of the latter organ. It was covered with a prepuce, and had a fissure below, which was imperforate. About an inch lower down, and nearly half an inch to each side of the raphe, were two very small orifices, resembling abrasions of the membrane, and hardly admitting the point of a probe. Still lower, was situated the entrance of a pretty capacious canal, protected at its lower edge by a fleshy bridle somewhat of a semilunar form, which divided it from the perinæum. This canal was about three inches long, and terminated in a cul de sac, excepting that at the further end there was a narrow orifice, through which, when he was desired to make water the urine flowed. The right scrotal half (or labium) contained a reducible hernia, for which he was operated on by professor Bach, at Dresden, three years ago, when it first appeared. The testes descended, for the first time, along with the hernia. The cicatrix left by the operation is still visible on the left labium, and he wears a double truss.

He has pretty strong sexual desires, and says that he can perform in either character, but prefers *jouer le role de la femme*. He has nocturnal emissions, and emissions also on libidinous ideas being excited with regard to either sex—the semen flowing from the small orifices below the clitoris or glans penis. There was never any discharge resembling the catamenia.

This individual, as Dr. Sillar explained to the gentlemen in attendance, belongs to the fourth class of Sir Everard Home's division (*Phil. Trans.* 1799), viz. "where there exists a real mixture of the organs of both sexes, although not sufficently complete to constitute the double organ."—*Liverpool Medical Journal, July.*

THE ADVANTAGES OF TURNING THE FŒTUS BY THE HEAD RATHER THAN BY THE FEET.

Up to the end of the 16th century, the only mode of turning ever practised was by bringing down the head first; and we find this conduct recommended, not only in such cases as are admitted at the present day to acquire artificial delivery, but even in common pelvic and feet presentations. Soon after the above mentioned date, turning by the feet was first proposed, but it was not until the commencement of the 18th century that the practice was generally followed. One of the professors of the school of Strasburg resisted this innovation, strongly maintaining the superiority of the old regime; and his advice was approved of by many of the German practitioners. To justify this preference it was asserted that when the head presented first, the compression caused by the os uteri is not sufficient to injure the encephalic contents, and moreover, the communicating circulation between mother and child remains unobstructed; whereas in presentations of the lower extremities, the thoracic and abdominal viscera are exposed to a dangerous compression, and the fluids are driven back upon the head, thus causing frequently a fatal cerebral congestion. In confirmation of the truth of this statement, we are told that only one child in twenty delivered by the head is still-born; whereas, the proportion is one to five in feet presentations. In conclusion, it is alleged that whenever the fœtus is movable within the uterus, it is quite as easy to affect the turning by the head as by the feet.

M. Dubois dissented from the above arguments. He contended that the described dangers of any compression on the abdomen and thorax were most unnecessarily exaggerated, and instanced two cases wherein the shoulders presented along with the head, and yet the children were delivered without any contusion of the thoracic and of the abdominal viscera.

The dread too of the retropulsion of the blood upon the head was an offspring of fancy rather than a result of experience; he did not agree with them in their belief that the os uteri exercised such a constrictive pressure as was alleged; the parts of the fœtus which have already escaped from the uterus, are subjected to a less degree of pressure than those still contained within its cavity; and hence we can readily explain why the blood should be driven to and accumulated in the former. Do we not observe that when an arm is born first, the member frequently becomes much swollen? now this swelling arises from the pressure being less upon the arm than upon the rest of the body. True it may be, that in many children who die after feet presentation, visceral congestions are not unfrequently discovered; but the cause of these is the compression of the umbilical cord, and not the retropulsion of the fluids which M. Flamant believed to take place.

The compression of the cord is a necessary danger attending all births by the feet, and indeed it constitutes a very serious objection to the process of turning; the child is very often asphyxiated, and in such a case we find upon dissection the same phenomena which are observed after drowning or hanging, viz. an apoplectic plethora within the head, great congestion in the veins of the cerebrum and other viscera.

The calculations which have been adduced to prove the greater safety of turning by the head than by the feet, are not strictly correct, as will appear from the following statement of M. Dubois:—

In all such calculations, to ascertain the comparative mortality of the different modes of delivery, we must be careful to exclude from our tables all cases wherein the child has died before actual accouchement has commenced; or wherein the labor has been premature, and the child may be therefore not well capable of independent life. Now the new tables which have been recently formed at the Maternite of Paris, on these principles, show, that from the 1st of June, 1829, to the 1st of June, 1833, 10,724 children have been borne at the hospital; of these 10,262 were born by the head, 391 by the lower extremity, 59 by the trunk, and—30 by the face; of the 10,262, 9867 were at the full period of gestation, and 395 were not. The 9867 may be reduced to 9837, because, in 30 of the cases the fœtus was known to be dead before delivery commenced, and the 395 premature cases may be reduced to 278; for in 83 the fœtus had been dead for some time, and in 34 it was too imperfectly developed for the maintenance of independent life.

Of the 9837 deliveries by the head at the full time, 191 were born dead; the proportion is therefore one in 51 or 52; and of the 278 prematurely born, 48 were born dead, or one in every five or six. Of the 391 deliveries by the lower extremity 238 were at the full term, and 153 before the term; from the first number we must deduct seven, who were dead before labor began; and out of the remaining 231, 21 were born dead; a proportion of one to eleven. From the 153 we must deduct 63, in which the child had evidently died during pregnancy, and 30, in which it was too young for independent life; and out of the remaining 60, 10 were born dead; or one in six. From these calculations it appears among other results, that the fœtus at the full period can endure the '*fatigue of accouchement*' with much greater safety than when born at an earlier period, whether they are delivered by the head or not. M. Dubois draws our attention to the important difference in the results by the previous deduction of all the cases in which the fœtus either had been dead for some time before labor, or was incapable of life when delivered. Thus had we enumerated these cases among the mortality in the 10,262 head presentations, we should have had 386 deaths, or one in 25; whereas we have fixed it above at one in 51; and in the 391 feet presentations the deaths would have amounted to 134, or nearly one in two instead of one in eleven. With regard to the comparative advantages in practice of turning by the head, M. D. admits that in some cases the operation is not only possible [Mad. Lachapelle was wrong in denying this], but also abundantly easy. He has himself performed it twice when the shoulder presented; but the operation is much more difficult than that of turning by the feet, and should the liquor amnii have copiously escaped, or should the uterus be firmly contracted around the child, the manœuvre is almost impracticable. In the 59 trunk presentations, two were delivered by means of turning by the head; in a third case the expulsion of a putrid fœtus took place by the shoulder; and in the remaining 56 the child was brought down by the feet. Out of the whole number 59, in 25 only did the child survive; but M. Dubois is of opinion that a still smaller number would have been saved had turning by the head been tried in all.—*Med. Chir. Rev.*

TREATMENT OF A CASE OF DELIRIUM TREMENS.

To the Editor of the Medical Gazette.

Sir,—The case of delirium tremens succeeding apoplexy, related in your journal of last week, by Mr. Robbs, brought to my mind a similar one which occurred in my practice about the middle of last July. As the case ended favorably, you may perhaps consider it not altogether uninteresting.

RETENTION OF URINE—PARALYSIS OF THE LOWER EXTREMITIES, CURED BY BLISTERING AND MURIATED TINCTURE OF IRON.

Moses Levi, æt. 52, admitted January 27th, had a fright four months ago; immediately after which he lost all power of motion, but not sensation, in his lower extremities; has been since unable to void any urine. A silver catheter was first employed, and now an elastic one; both of them pass with facility; urine clear, not ammoniacal. Can walk about with crutches, but not without them.

Tr. Ferri Muriat. m. x. ter die.

February 3d.—Feels stronger. Has passed urine for the first time this morning without the instrument. Much purged.

Vesic. Lumbis. Quin. Sulph. gr. i. ter die.

6th.—Has so completely regained the power of passing his urine, that the catheter has not been introduced these two days. Still purged.

Omittantur Medic.

March 3d.—Walks much stronger. Micturates very freely, indeed he states in preternatural quantities.

Pil. Hydr. Pil. Sap. c. Opio. gr. iiss. n. maneque.

20th.—Can walk with a stick only. Still discharges, according to his own account, large quantities of urine, especially at night.—Rep. Pil.

30th.—The quantity of urine has diminished, and is now not greater than natural, Discharged cured.

Remarks.—This case possesses interest from the suddenness of the attack, from the paralysis having arisen from fright, and from its successful issue.

From the beneficial effects of iron, and the application of a blister to the loins, the paralysis would seem to have been owing to debility rather than to congestion or disorganization of the medulla spinalis.

CASES AND OBSERVATION ON FUNGUS HÆMATODES.

By William Bainbridge, Esq., M. R. C. S., Tooting.

The accompanying sketch, which represents a curious and, perhaps, instructive instance of three forms of fungus hæmotodes, co-existing in the same individual, I have sent for insertion in the London Medical and Surgical Journal, if you think it of sufficient importance, in conjunction with some others.

The patient, a child four years of age, was the subject of the disease about two years. It commenced in the left eye, producing loss of vision, and the appearance of a speck on the retina, which looked like "polished steel," the pupil became fixedly dilated, and of a greenish hue. As the disease progressed, symptoms were produced very like cataract and amaurosis conjoined, in consequence of the tumor at the bottom of the eye very exactly representing an opaque lens. The conjunctiva was now vascular, the globe very irregular, the iris pushed forwards, and shortly afterwards the sclerotic ulcerated, and the fungus appeared in the shape of large, red, exuberant granulations. Either at this stage or a little previous, an operator would extirpate,—but mark the inevitable result. A small, hardish tumor is discovered a little anterior to the lobe of the left ear; it soon became more elastic and unequal, and increasing in all directions, produced a circular, flat, mushroom-like growth, which covered the ear and the neck nearly as far as the shoulder, and extended up the temple. It ulcerated early, and then the external surface was irregular and flat, appearing to be covered with a serous membrane, dried by exposure to the atmosphere, dotted with numerous red points, and exuding a sero-purulent

fetid discharge. Both this and the fungous eye bled a few drops occasionally. A little before this period the right temple began to exhibit a slight bulging, which on examination was ascertained to be a tumor with a broad base, having the feel as if it were a cyst tightly filled with some thinnish fluid, the color of the skin unaltered, surface even, and no pain complained of. In the course of time it became unequally developed, and on kneading it, felt very much like an India rubber foot-ball not quite full of air. When it

had attained a considerable size, it was very difficult to decide whether or not it was an encysted fluid; indeed the surgeon under whose care he was admitted, punctured it, in order to ascertain whether it did or did not contain fluid. At the period the drawing was taken, this last named tumor projected several inches from the temple, extended over the right eye, partly across the mouth, and afterwards nearly reached the shoulder. The skin then looked thin, translucent, polished, and blue veins, as seen in the drawing, meandered in various directions; though so considerable in size, it never ulcerated. It is rather singular this patient appeared to suffer so very little from pain. He died from mere exhaustion and inanition. No post-mortem could be obtained.

Wardrop, in his "Observations," affirms that fungus hæmatodes most usually affects children under twelve years of age, and Travers, in his "Synopsis," states that this disease will occur primarily in any texture of the eye, except the lens and cornea; whereas mere cancer is only found as a primary disease in the lachrymal gland, conjunctiva, and eyelids. I took a note of the case of a tramper who came to desire me to give him something to compose him "a wee bit at neeght noo;" his left orbit contained a sloughing putrid mass, implicating every texture within the socket; it sometimes bled rather freely, but his pain was not excessive, though he required an anodyne to relieve his restlessness during the night. He said it commenced eighteen months previous, with pain shooting

through the head, "inflammation of the eye," and blindness, for which symptoms he had been bled, and his mouth made sore with some pills, after which he considered himself rather worse than better. His age was about forty-five; he never had anything of the kind in any other part of his body. It is worthy of remark, that this poor fellow, though afflicted with so loathsome and fearful a malady, possessed an extraordinary buoyancy of spirit, and a very tolerable share of health, being able to walk several miles a day, in the pursuit of his honorable vocation of match-seller. I never saw him afterwards.

In further illustration of some of the characteristic features of fungus hæmatodes (which is, indeed, the sole object of this communication), I may, perhaps, be allowed to present you with an abridged history of another case not altogether devoid of interest.

J. B., aged five years, June 20th, 1829. Having a tumor which grew from the space between the verge of the anus, and the tuberosity of the right ischium projecting outwards about two and a half inches, and having a circumference of about three inches. Its figure very much resembled a German sausage cut in two. The free end was quite flat, as if cut with a knife, and had a well defined margin; this flat surface was ulcerated, and discharged a small quantity of a sanious, rather fetid fluid, and bled occasionally when hit, or, sometimes, during a stool. The poor little fellow cried a good deal, and complained of the tumor, especially while at stool. It felt soft, and more doughy than elastic. About nine months ago, the child complained repeatedly of this part, which at last attracted the particular notice of the mother, and occasioned her to examine the place minutely, when she discovered a small swelling, the size of a hazel nut, colorless, and quite soft. As the health was unimpaired, she did not attach much importance to its presence, and therefore neglected to apply for advice. Three months afterwards, continuing to increase in size, a medical man was consulted, who applied leeches, and administered some medicines, among the rest powders with calomel and sugar. After this time it grew much more rapidly than before. The rectum was ascertained to be unconnected with the tumor.

An immediate operation advised. Extirpation was effected by making two incisions near its base, in the form of a double ellipsis, and dissecting out the tumor, which was not connected with the surrounding structures, except by means of cellular tissue. The wound was only just healed when fresh tumefaction was evident beneath the cicatrix, which almost immediately began to ulcerate, and some small fungi sprouted forth. Extirpation was again performed, and tinct. ferri mur. applied. In less than a month the enemy was again apparent in the form of little insulated clusters of redundant granulations, looking as if painted red at their apices, very painful, and bleeding on being slightly touched. A third operation was performed, the integument and portions of muscle cut away to some extent, and as near to the rectum as was consistent with its safety. A concentrated tincture of iodine was applied several times after this extirpation. But this also failed; the discharge became ichorous and offensive; fungi studded the wound; and, in utter despair, it was left to take that course which, I believe, the most transcendent surgical or medical skill could not have arrested. The only attainable object now was the relief of bodily pain; and though every effort to rescue this poor sufferer from his inevitable fate had been most signally defeated, we had the delightful assurance that there yet remained the power to smooth the pillow of death, and divest the tyrant of some few of his horrors. From residing several miles distant, and being myself much occupied, this case was now seldom seen, and he died sometime before I was informed of the event, in consequence of which circumstance no post-mortem examination was obtained.

The variety of feel and mode of growth, as instanced in these cases, seem to me to depend not more upon the kind of morbid deposit than upon the structure and location

of its attack. Thus, the enlarged parotid gland, which was situated under fascia, at first felt somewhat hard, and then, being restrained in its growth, spread about and became a flat mushroom-like fungus; but the tumor on the right temple, in the same case, and the one near the rectum, in the last cited, felt soft and elastic, and projected outwards from their attachments; the first rotund, nearly shaped like a ball, and the last like a German sausage. These being seated in loose cellular membrane, had no fascia to obstruct their growth.

The pain experienced is also very various, depending, no doubt, on the vicinity being more or less nervous, and their being inflamed or implicated in the disease, and, perhaps, upon the kind of nerve affected; for instance, the optic nerve being insensible to pain may be the subject of this degeneration without imparting much pain, if it alone be involved. Dr. Carswell thinks the presence of veins on its surface depends on the fungus exerting a pressure on the large veins beneath; but may not these be occasionally new formations—part and parcel of the morbid growth? for it is not uncommon to meet with very large tumors over the site of considerable veins, which were manifestly superficial veins. I consider these remarks to possess some importance, because fungus hæmatodes will frequently, at the commencement, appear very like a steatoma, especially if unattended by pain. The influence of measures adopted with the object of dispersing these tumors, is very singular. J. B. was calomelised and leeched, and the tramper bled and salivated, after which they both suffered a much more rapid increase. Dr. Thwaite, in the relation of a case published in the last number of the *Dublin Journ. of Med. and Chem. Science*, also mentions, that after the application of a blister the fungus grew very fast.

The tumor removed from J. B., on inspection, presented at its base an organization not unlike the cineritious substance of the brain, somewhat indurated; on cutting towards the summit, its structure became more diffluent and hæmorrhagic, with small clots of blood interspersed. We might, therefore, denominate this disease medullary sarcoma, cephaloma, spongoid inflammation, soft cancer, or fungus hæmatodes.

We announce with great pleasure that Dr. Wilson Philip has been elected a Fellow of the college of physicians. His splendid talents and his industry have won for him the honor. The college should be proud of the accession.

PREPARATIONS OF MERCURIAL OINTMENT:

It has long been a subject of complaint that no substance has yet been discovered which will mix speedily with mercury in making the ointment, without injuring its medical properties. M. Dorby, a pharmacien at Crepy, has lately published, in the *Journal de Pharmacie*, a formula for preparing it, which will shorten considerably the time used in the operation. He says, that the lard to be employed must be melted, and then poured into a large vessel; to be afterwards placed on a hair sieve, and preserved in a dry place where the dust cannot get at it. At the end of fifteen or twenty days it will soon mix thoroughly with seven or eight times its weight of mercury; and the more rancid it becomes the greater is its power for incorporating with the metal; so that at the expiration of a few months it will incorporate readily with thirty-two times its weight of mercury.

A MEMOIR ON ENGORGEMENT OF THE PROSTATE GLAND, AND PARALYSIS OF THE BLADDER—NEW MEANS OF TREATING RETENTION OF URINE FROM THIS CAUSE.

By M. Leroy of Etiolle.

M. Leroy recalled the attention of the academy to a memoir that he had already read

on this subject, and persisted again on this pathological alteration of the prostate, which in a number of cases is overlooked in consequence of retention of urine. After this he exposed the best means of combating this disease. The first thing that he endeavors to attain is a decrease of the prostatic tumor, which forms, he states, a kind of valve before the vesical orifice. Thus a depression is executed in the following manner:—A catheter, with a curved mandril, is introduced into the bladder, the mandril is withdrawn, and in its place is introduced a straight one, which, by gentle force, by means of a screw at the end of a bougie, is made to penetrate. This small apparatus remains in the urethra for thirty minutes or an hour. Many times a single application has been sufficient to combat a retention of urine of long standing, and which from every other remedy has remained obstinate. At other times, its application is necessary five or six times before this effect is obtained. Tumor of the prostate is not always situated above the neck of the bladder; in a few cases it is produced by a development of the lateral lobes. Depression in these cases can be of no service, and dilatation of the neck is more beneficial.

Finally, when neither depression of the prostate nor dilatation of the neck is sufficient to counteract the retention, M. Leroy has attempted ligature of the tumor, by means of instruments which he has invented for that purpose.

His paper terminated by a series of cases of retention, which he had recovered by the means above stated, after all other remedies had failed. The following are the results—nineteen cases of application, sixteen cures. Those cases in which the application did not succeed, found no ill consequences from the attempt made.

CASES OF PARALYSIS OF INDIVIDUAL NERVES OF THE FACE.

By Dr. Christison.

CASE 1. *Palsy of the Third Nerve or Motor Oculi—Recovery under free Venesection and Mercurial Salivation.*

A stout blacksmith, of middle age, and much given to drinking, was admitted into the fever-hospital, supposed to labor under continued fever. During the confusion incident upon opening the hospital, and receiving a great number of patients before the appointment of a physician, the exact nature of his case was for some days overlooked; but a day or two after my appointment, my attention was called by Dr. W. Reid, then superintendent of the hospital, to a considerable squint of the left eye; upon which the following account was given by the patient:—

Three weeks before his admission into the hospital, and immediately after a debauch, he first remarked that he saw double; and at the same time he was affected with ringing in the ears, headache, and giddiness, which last symptom was particularly troublesome when he kept his left eye open. After a fortnight he had rigors, general soreness, and increase of headache; and for ten days after admission into the fever-hospital he had the symptoms of a mild attack of general fever, with continuance of double vision. Subsequently the two images gradually approached one another, till at length they coincided, and he saw single; and at the same time the general fever ceased. When first carefully examined, a few days after that, it was observed that the left eye-ball was turned very much outwards; that he had no power whatever to turn it upwards, inwards, or downwards; that when desired to look up, he merely rotated the eye-ball on its horizontal axis inwards; and that the upper eye-lid always hung over the ball, so as to be in contact with the lower, except when he was told to raise it, upon which he uncovered half only of the pupil. The pupils were equal in size, and contractile; and when he closed either eye, he saw quite well with the other. The vision with both eyes was not double. He had frequent diffuse headache, but no disorder in any other function.

For some days after this examination, the state of the affected eye varied, as he occa-

sionally recovered imperfectly the movements of the eye-ball for twenty-four hours at a time; but at length they were lost entirely. The treatment for ten days after the paralytic affection was remarked consisted in the occasional application of leeches to the temple, and of a blister issue behind the ears, together with frequent laxatives. No amendment, however, was procured from these measures.

Four or five days later, when he had been three weeks in the hospital, his headache began gradually to increase, and the pulse to rise; in a day or two more he complained of great general soreness of the head, and of shooting pains, numbness, and diminution of muscular power in both limbs. Blood was therefore drawn from the arm, to the amount of two pounds. It was very buffy, and gave immediate relief from the headache. Calomel was also prescribed, in the dose of five grains four times a-day, with a little opium, for the purpose of quickly affecting the mouth. When this had been continued four days, the affection of the limbs ceased, and the fever abated considerably; but a slight deviation was remarked in the tongue, to the left, and in the mouth, towards the right side; while at the same time the affected eye was turned more outwards than ever. On the sixth day of the mercurial treatment his gums became tender, and the calomel was therefore discontinued. A moderate salivation immediately followed. On the fourth day after the discontinuance of the calomel, there was an obvious improvement in the state of the eye, and in twenty-four hours more the improvement was considerable. The movements of elevation, depression, and adduction of the eye-ball, could be performed to half the natural extent, and he could raise the eye-lid so as to uncover two-thirds of the cornea. At the same time the deviation of the tongue and mouth, the headache, and all his complaints, ceased.

From this time he improved rapidly and steadily, so that in a week after the lost movements recommenced they could be performed perfectly. The salivation lasted twelve days, and was always gentle. In twelve days more he was dismissed quite well, having been in the hospital seven weeks.

It is worthy of remark, that after the movements of the affected eye returned so completely, that this eye, when the other was covered, could follow a moving object briskly in any direction, some days more elapsed before the affected eye accompanied the other in its movements, when both were uncovered. For example, if the patient was directed to look at an object straight before him, he squinted the left eye outwards, and looked at it with the right only; but if he was told to look at it while the right eye was covered, he turned the left on it; and when the right was then uncovered, he directed both eyes on the object, and for a few seconds followed it with both, when it was moved before him.

I shall not attempt to explain the singular fact mentioned at the commencement of the case, as to the man first seeing double, and then remarking a gradual approximation of the two fingers till they coalesced, and he saw single—while the squinting of the eye nevertheless continued. This is so different a phenomenon from what we should expect in the circumstances, that I shall not insist on the accuracy of the statement, because it was drawn up from the man's own account of what occurred some days before I saw him. Yet it is fair to add, that he always gave a very clear narrative of the progress of his illness, and never deviated in any particular from his first statements. In such a case, we should expect—not that the images would gradually approach and coalesce—but simply that the individual would gradually acquire the habit of abstracting his attention from one of the images, and so recover single vision.

Case 2. *Palsy of the Portio Dura of the Seventh Nerve on both sides.*

A young man of middle stature was admitted into the fever-hospital on account of a smart attack of continued fever of the inflammatory type, but without any particular local inflammation. On the fourteenth day of the disease he got quickly better by critical

sweating, the pulse falling form 120 to 72 in the course of a single night. Nothing occurred to interrupt convalescence till the end of the fourth week, when he complained of a sore mouth, for which a vinegar wash was ordered. In five days more, however, the man continuing still to complain of his mouth, a careful examination was made, when the dead stillness of his countenance at once attracted attention. The lips were completely palsied and could not be closely shut, the nostrils could not be curled, the upper eye-lids could not be closed, and he could neither laugh nor whistle. At the same time the sensation of the affected parts was everywhere perfectly entire. He had not the slightest fever, no headache or local pain of any kind, except soreness of the mouth; and his only complaint, indeed, was of the dryness and soreness of his lips.

Low diet was ordered, blisters were applied behind the ears, and leeches immediately before them, and laxatives were frequently administered; but without the slightest advantage. About this time the last patient, with palsy of the *motor oculi*, recovered apparently under the operation of mercury. The same treatment was therefore applied in the present instance, and a smart salivation was brought on, which terminated in a copious impetiginous eruption over the whole face. The patient, however, did not derive the slightest benefit. All the parts supplied by the muscular portion of the seventh nerve, on each side of the face, continued in a state of perfect paralysis. After remaining three months in the hospital, he was dismissed in the same condition; and I have never since been able to receive any information of the progress of his disease.

Case 3. *Paralysis of the Portio Dura of the Seventh Nerve of the right side.*

When in the country last autumn, I was requested to visit a young man who was supposed to labour under palsy. His paralytic affection was of five or six days' standing; and it was preceded for some days by severe aching pain in the whole right side of the face. When I saw him the pain had ceased; but the whole right side of his face was completely paralyzed. In a state of repose it did not present any peculiar appearance, except considerable depression of the right eye-brow. But on careful examination I found that he was unable to whistle, to curl up the right side of the nose, to elevate the right eye-brow, or to close the right eye-lid; and when he laughed the mouth was drawn much to the left side. The right eye watered a good deal; and when told to close it, he closed the lids imperfectly, and turned the pupil upwards beneath the upper eye-lid.

He complained of acute pain on pressure upon the cheek in the region of the exit of the infra orbitary nerve, and likewise in the jaw at the exit of the inferior maxillary nerve upon the chin, also of *tinnitus aurium* when at work. He had never had headache, or any pain or swelling before or around the ear; neither was there ever any weakness of the limbs or arms, any material difficulty in speaking, or divergence of the tongue from the straight position when thrust out. The sensation of the cheek, too, was quite entire. The pulse was natural.

I recommended him to have a blister applied frequently before and under the right ear; and after following this plan of treatment, to resort to a mild course of mercury if he was not relieved. Six blisters were in consequence successively applied between the close of September and beginning of December; and during the latter part of that period mercury was given so as just to affect the mouth.

Some amendment was remarked after the application of the last blister, which extended from behind the ear to the chin, and acted very severely. Till then he experienced no improvement, and since then he has made but little progress. I am unable to state the precise amount of amelioration that has taken place; but I have been informed by the clergyman of his parish that he can now close the right eye-lids completely, but does so very slowly,—that the other palsied actions of the muscles of the face appear to remain nearly as when I saw him,—and that he has still acute pain on pressure on the cheek

under the eye, or on the lower jaw near the chin, but that he continues entirely free of general palsy, or any head symptom.

Aug. 18th, 1834.—The patient eventually got quite well.

CASE 4. *Palsy of the Optic Nerve.*

The next case to be mentioned I have entitled palsy of the optic nerve; although I believe the propriety of the name is doubtful.

A middle-aged man, of meagre habit, and very deeply scarred with small-pox, was admitted in the summer of 1829 into the surgical department of the infirmary, on account of chancres and bubo. The chancres soon healed; but the sore left in the groin after the suppuration and opening of the bubo was untractable. While in this state, he was attacked with dysentery, which at that time (Autumn 1829) prevailed in the hospital, and was so fatal, that about a fourth of those who were taken ill perished. Being transferred to the medical department on account of the dysenteric attack, he became my patient. At this time he had dysentery in its worst form; and although the acute stage was soon subdued, the symptoms nevertheless shewed that extensive ulceration had taken place in the intestines; and he died six weeks after I saw him.

At first no attention was paid to the circumstance of his being blind of an eye, as the marks of severe confluent small-pox semed to account for it sufficiently. But on his mentioning to me incidentally, that the sight was lost only two years before, careful inquiry was made; and it was then learned, that, on the occasion alluded to, he had been a patient in St. Bartholomew's Hospital, London, with severe headache giddiness, feverishness, and incomplete palsy of one of his sides; and that he gradually got the better of these symptoms, but was at the same time attacked with inflammation of the left eye, which burst, and became totally blind.

It was natural in these circumstances to expect that some injury would be found in the course of the fifth nerve. This nerve, however, was found quite healthy, so far as the sight and touch could determine. But the optic nerve of the affected side, between its exit through the orbit and its decussation with the opposite nerve, was not more than half the breadth of the other, and was grey in color, and flaccid in texture. Between the point of decussation and the thalamus of the opposite side, it was of the natural whiteness, but softer and less than its fellow; and the thalamus itself was somewhat flattened. The brain was otherwise healthy, except that a very great watery effusion had taken place under the arachnoid coat over the whole external surface, which appeared to account for the severe headache and frequent incoherence remarked towards the end of his illness. There was no appearance of an old cyst or other disorder in the substance of the brain. The colon was covered to an enormous extent with ulcers in various stages of progress. The left eye was completely disorganized.

I am quite aware that, in calling this case palsy of the optic nerve, I may err in taking for the cause of the destruction of the eye what was really its effect. Neither do I pretend to say that there is much probability in the view here given. But it appears to me right to make known the particulars, because it is not impossible that diseases of other parts of the nervous system, besides the fifth nerve, may lead to destruction of the eye; and this is presumptively a case of the kind, the presumption being founded on the bursting of the eye having been immediately preceded by some organic disease of the brain, and being not associated, as usual, with disease of the fifth nerve.—*Edin. Med. and Surgical Journal.*

CASES AND OBSERVATIONS ON FUNGUS HÆMATODES.

By William Bainbridge, Esq., M. R. C. S., Tooting.

(Continued from p. 36.)

The existence of this tumor in a cellulo-vascular structure like that of the perinæum,

affords to my mind one argument in controversion of the doctrine inculcated by some pathologists, that the several varieties of tumors are always somewhat analogous to the texture of the parts in which they are located, for I cannot perceive the slightest resemblance between the cineritious substance of the brain and any of the parts near the rectum. If the tumor had consisted of accidental erectile tissue, to which according to Andral, the epithet fungus hæmatodes has been applied, some similarity between the disease and its seat might have been traced, but that was not the case here. I have at this present moment a patient who, twenty-five years ago, had his upper jaw severely bruised, during the effort to extract a tooth; afterwards a tumor made its appearance in that situation, which has continued to increase, and now occupies a very considerable portion of the superior maxillary bone, it presents all the characters of carcinoma; now, in this instance, what fellowship can there be between the tumor and its site, the bone? Again, small tumors are sometimes found on the surface of the peritoneum nearly resembling cartilage: and not unfrequently in the substance of the most solid bones soft deposits possessing the character of brain; surely these are not much like their several places of location. But the most urgent reason for rejecting this comprehensive generalization, is derived from the fact that precisely the same disease affects indiscriminately almost every structure of the body; thus medullary tumors are found in bone, veins, glands, cellular, vascular, and nervous tissues, and serous membranes. The notion of its (medullary sarcoma) nervous origin may also be combated by these considerations, as well as the circumstance of its being frequently seated where few nerves are visible, and of its being unconnected with, or implicating the nerves of the part. A mere resemblance of color, consistence or chemical constitution, should not be insisted upon as an argument, because a slight variation in elementary proportions is quite sufficient to establish a wide difference; besides were this a deposition of nervous structure, it ought surely to possess the property of nervous matter in some slight degree, whereas we know it to be completely devoid of any such endowment. With respect to the analogy which some have attempted to establish between fungus cerebri and fungus hæmatodes, the simple fact of the former having been sometimes cured by well-directed pressure, would of itself be a sufficient refutation. Fungus cerebri, moreover, is the common result of some violent shock to, and perhaps disorganization of, the brain, and the withdrawal of the resistance to internal pressure: and after death there is found a deficiency of the hemisphere from which the fungus proceeded; its course is also much more rapid than true fungus hæmatodes.

It is the property of some substances, when introduced, however small in quantity, either from without or by means of internal changes, in the animal economy to generate their like, and thus to vitiate the entire system: for instance, a very minute portion of the virus of small-pox, or rabies, is sufficient to generate in the whole body a poison which is the facsimile of itself. A like contamination is also the result of the presence of medullary sarcoma, scirrhus, &c. To this *power* of assimilation is attributable the inveteracy, and to the *facility* of assimilation the malignancy, of their nature, as well as to the *kind* of transformation which is effected. The state of scirrhus, however, appears to me to be dependent on some other, though it may be somewhat similar, pathological condition than that of medullary sarcoma, because the one will sometimes exist for years without manifesting any sign of the other's presence. About six months ago I examined the body of a woman, who had been the subject of scirrhus some years, and from whom Mr. Lynn had removed a scirrhous breast (this, I believe, was the last operation that venerable surgeon performed in public); the parts in the immediate vicinity of the cicatrix, and the absorbent glands in the neck and the axilla were scirrhosed, the right axillary

vein was full of a very firm dirty white deposit, which cut something like a piece of cheese; this had occasioned the arm to swell enormously, and ultimately to mortify; the whole extent of the pleuræ and peritoneum was studded with numerous whitish radiated patches of the form and size of drops which had fallen from a wax candle; the lungs here and there contained *firm* tubercles, generally about the size of a hazel nut; the mesenteric glands exhibited the same formation; the liver was a mass of scirrhous matter. In this case there was nothing which could be likened to medullary sarcoma, or fungus hæmatodes: it therefore appears to countenance the belief in the individuality of the two, and their dependence upon distinct pathological conditions.

The term "humoral pathologists" has of late years been regarded as one of reproach, Bichat, however, says, in the introduction to his Anatomie Générale, that "although the humoral pathology has no doubt been carried too far, it is founded on truth, and in a great many instances we must allow that *all* should be referred to morbid humors. If, then, backed by such authority and such proofs as are to be collected from what has gone before, I venture to contend for the blood being the source of these tumors, I trust I shall not be considered too presumptuous. But, for what I consider to be almost demonstrative proofs of the correctness of this view, I beg to refer to Dr. Carswell's Second Fasciculus on Carcinoma. Dr. Carswell has also very properly grouped these diseases under the common appellation, carcinoma, because if even their resemblance of structure had not been so great as to justify such a measure, yet their arrangement under this term was judicious, inasmuch as it stamps their character of malignancy, and as it were, holds up a beacon to warn the surgeon of their real character. Andral, indeed long ago suggested the expediency of denominating "all these lesions cancer, tending to produce an ulcer, which spreads in every direction, and either slowly or rapidly destroys all the surrounding tissues."

The inquiry, whether tumors which were at first innocent can become malignant, and whether in all cases malignant tumors were primarily simple, is a very interesting and important one. In the Medico-Chirurgical Review, for April, 1831, page 521, three cases are related, which are supposed to instance the former of these, but to my mind they do not carry complete conviction; I should occupy too much space if I were to attempt to analyze them, and will therefore content myself with merely referring to the cases. Sir E. Home believes "cancerous diseases are never so in their origin," but that simple tumors are first formed by deposits from the blood, which have afterwards impressed upon them a cancerous nature in consequence of some peculiarity of constitution; this opinion he illustrates by the case of John Hunter, who in throwing a stone lacerated some fibres of the pectoral muscle, in consequence of which a sanguineous tumor was produced, which however dispersed, and he felt no more of it; but in another gentleman, to whom a similar accident occurred, instead of the tumor disappearing, a cancerous fungus grew up, which occasioned his death. There is here, however, no proof that the effused blood was not in a cancerous state at the time of its effusion. No doubt tumors, which in the progress of development differ very much, appear in their early stage not unlike each other, but the very circumstance of their afterwards manifesting other characters, seems to prove that there must be some primitive dissimilarity not apparent to the eye. The wonderful reproductive power of fungus hæmatodes, after repeated extirpations and the usual effect of local applications, appear to point to some other remedial measures than have hitherto been employed. The operation can only be available upon the first appearance of the tumor: after it has attained any considerable size I should consider I best served the patient by letting it alone, and only attempting to improve the state of the health; at present we know of nothing calculated to effect any

amendment in the system after it has become so universally degenerate, but in the progress of medical science, in the march of medical intellect, something may be discovered sufficiently potent to eradicate from the human body the taint of scrofula, phthisis, cancer, and other diseases of a like malignancy,—this were "a consummation devoutly to be wished for."

FALSIFICATION OF WRITINGS.

A medical student was recently convicted and punished in France, for forging a will by altering the handwriting; and it is said that frauds of this nature are becoming alarmingly frequent in that country of late. We should not be surprised if similar attempts were made here ere long by some of our *chevaliers d'industrie*; but fortunately the mode of detecting falsifications of the kind is not difficult, if suspicion be once awakened. Old writing is removed, and place made for new, either by erasure, by the application of muriatic acid, or by both. A supposed erasure should be examined with a magnifier; and if it seem to have been touched with size or sandarac, as ground for the new writing, these substances may be dissolved with water or alcohol respectively. If muriatic acid have been used, it is not unlikely that all the acid may not have been washed out, when the excess may be readily tested with litmus paper. But whether chlorine or muriatic acid have been employed, it is probable that some traces of the oxide of iron of the old ink may still remain; and these may be rendered visible by washing the part with a camel-hair pencil, dipped in diluted gallic acid. The latter process may have to be repeated several times, and on successive days, allowing the dilute acid to evaporate slowly each time. We are indebted to a paper by M. Chevalier, in the last *Annales d'Hygiene*, for these brief but valuable suggestions.

MEDICO-LEGAL DISINTERMENTS IN FRANCE AND ENGLAND.

From an Introductory Lecture, delivered at the Aldersgate-street Medical School, Nov. 1, 1834. By Dr. Cummin.

[Having noticed the very unsatisfactory figure made by Mr. Hunter, as a medical witness, at the trial of Donellan for the poisoning of Sir Theodosius Boughton, the lecturer proceeded—]

The trial just spoken of was remarkable for another circumstance, to which I am desirous of drawing your attention. Evidence was given in this case as to the appearances observed on a medico-legal disinterment. The body of Sir Theodosius Boughton was taken from the grave on the *eleventh day* after death, and examined with a view to detect the marks of poison. The description given of the appearances by Dr. Rattray, is curious:—"The body appeared swollen generally; the face was of a round figure, extremely black." This, by the way, corresponds with the observation made by Sir Henry Halford, in a paper read not long since at the college of physicians; Sir Henry mentioned that he was present at the examination of Sir Theodosius Boughton's body, and that the face resembled "a pickled walnut." But to return:—"The lips were swelled and retracted, showing the gums; the teeth were discolored; the tongue protruded beyond the teeth, and turned up towards the nose. The blackness diminished as it descended towards the breast. The remainder of the body was spotted in several parts." Yet this was an appearance (the blackness confined to the head and upper part of the chest) in which Mr. Hunter—in his great zeal for the prisoner's safety—said he could see nothing but the effect of putrefaction. Dr. Rattray, however, distinctly deposed to having observed the same appearance in the body on the third or fourth day after death.

I shall not trouble you with further details of the evidence given on this occasion;

suffice it to say, that they were listened to with great attention by a crowded court, and contributed strongly, in conjunction with the other circumstantial evidence of the case, to convict the prisoner. My purpose in saying so much on the subject is to endeavor to show you that the duties of the medico-legal practitioner are often very curiously diversified; and that, even were there no provision for legal medicine as a distinct study—as was the case in this country at the date of the trial in question, and for many years after—still events will from time to time occur, rendering it imperative on the practitioner to undertake some of the most difficult investigations. And among those difficulties, none are perhaps more likely to tax his ingenuity than medico-legal disinterments.

What extraordinary things have been achieved in France of late years, by exploring the secrets of the grave, are sufficiently celebrated. Those achievements constitute almost a new era in legal medicine, and confer a triumph on medical science. The murderer has been discovered; the mutilated, perishing, and nearly evanescent remains of his victim, have been made to give their evidence against him; the poison that deprived the victim of life has been rendered up grain for grain; the wound that despatched him has remained to give its awful testimony years after.

It is in France chiefly that this subject has been considered in all its bearings, and carried to a state of high perfection, both by experiment and actual practice. Orfila has particularly distinguished himself by his researches in this respect; his work on Juridical Exhumations is as ingenious as it is singular. In it he enters deeply into the examination of the physical changes which the various tissues of the body undergo, according to the length of time elapsed up to the period of investigation—whether the parts have been deposited in earth, water, or other enveloping substances; and with especial reference to forensic medicine, he shows how examinations of this kind may be made to elucidate obscurities relative to poisoning, wounds, infanticide, the determination of sex, age, stature, and every thing that can indicate identity. He has, besides, divested the process of much of its terrors. He has demonstrated that, with certain simple precautions, there is no danger in examining a body at any period subsequent to interment. It was the general impression up to his time that there was; but now, however forbidding, in the eyes of persons not accustomed to such things, the duty of the examiner may appear, no medical man will look with aversion on the task—at least none who has made himself but moderately acquainted with the duties that devolve upon him; he will, on the contrary, seize the opportunity when it offers, of at once promoting science, and benefiting the community by his labors.

In the drawings which are before you, you have copies of the appearances which presented themselves to Orfila and Lesueur, in their experimental investigations.

[Some drawings of persons disinterred at different times were here exhibited and described].

I shall give a few examples of what may be effected by researches of this kind. Not long ago proofs of poisoning were discovered in the remains of a body that had lain in the earth for *seven years*. The case occurred at Lyons. A woman had long been suspected of having poisoned her father; but for want of direct proof, justice could not reach her. At length a circumstance occurred which threw a strong light upon her guilt; and though seven years had elapsed, it was thought requisite and proper to disinter the body. The examination and the necessary experiments were conducted by M. Ozanam, assisted by M. Ide; and complete evidence of the presence of arsenic among the shapeless tissues of the stomach was obtained.

There was a very singular case investigated in Paris during the last year. I allude to that in which the remains of a murdered female were disinterred, identified, and the mode of death ascer[illegible] after a lapse of *eleven years*. Little more than a heap of bones was

found; but from their position, condition, and several peculiarities, the reporters (among whom we find the names of Orfila, Barruel, Chevalier, and Boys de Loury) were enabled to come to the following conclusions:—1. That those were the bones of a human skeleton; 2. of a female; 3. the age from sixty to seventy; 4. the stature about five English feet; 5. the hair had been bright blond, but latterly was mixed with grey; 6. the deceased had died of strangulation—the act being homicidal; and 7. the remains had lain in the earth for several years.

The prisoners, who had long been suspected of the murder, were tried and condemned to the gallies for life—having had a narrow escape of the guillotine.

It may be perhaps curious, and not uninteresting to you, to be reminded of certain disinterments which have taken place in this country for medico-legal purposes: we have, some very remarkable ones on record. As a counterpart, and a sort of contrast to the last case, let me call your attention to what occurred in the year 1758, at Knaresborough, in Yorkshire. I allude to the celebrated case of Eugene Aram, around whose history the pen of the novelist has recently thrown so much attraction; but whose plain unvarnished story is in itself, independent of any collateral fiction, almost a romance. This highly-gifted but unfortunate person, instigated by penury, and jealousy, as it is said, but above all, by the instigation of a depraved and profligate companion, committed a murder on one Daniel Clarke; and it was not till fourteen years after that proof of the crime was procured: that proof was the skeleton of the victim. Suspicion had never been attached to the name of Aram, but the desperate Houseman was long supposed to have been the assassin. At length, a skeleton being found accidentally, in a field at Thistle-hill, near Knaresborough, it was thought to be Clarke's, and Houseman was examined at the inquest. He was much confused and conscience-striken on the occasion; but affecting a degree of levity which had just the contrary effect to what he intended, he took up one of the bones, and said, "This is no more Clarke's bone than it is my bone." Upon which he was immediately questioned as to where Clarke's bones were; for he had now as good as confessed that he knew. He turned king's evidence—denounced Aram as the murderer—admitted that he had been an accomplice, and described exactly where the true skeleton would be found. In St. Robert's Cave, he said, they would find it, "just by the entrance, and with the head turned towards the right."

On the trial, the skull was produced in court—a ghastly witness against the accused. On the left side of it there was a fracture, that, from its nature, could not have been made but by the stroke of some blunt instrument; the piece was beaten inwards, and could not be replaced but from within. Mr. Locock, the surgeon, who was the chief, if not the sole, medical witness examined as to the appearances, gave it as his opinion, "that no such breach as that pointed out in the skull could have proceeded from natural decay—that it was not a recent fracture by the instrument with which it was dug up, but seemed to be of many years' standing." This seems to have been about the amount of the evidence which, taken with the circumstantial detail given by Houseman and some other witnesses, operated in procuring the prisoner's conviction: if, indeed, Aram did not himself do more to that end, by the extraordinary and truly surprising defence which he made—at once singular for its eloquence and its learning. This, I may remark, was the opinion of the celebrated Dr. Paley, who happened to be present at the trial. Many years afterwards, when conversing with some friends, about certain lives in the Biographia Britannica, which somebody observed were those of obscure individuals—Eugene Aram's, for instance. "Nay," said Paley, "a man that has been hanged has some pretensions to notoriety, and especially a man who has *got himself hanged* by his own cleverness, which Eugene Aram certainly did.

Aram called no witness for the defence. He relied wholly on his own ingenuity, and

produced, certainly, most powerful arguments to show that the bones discovered were those of some hermit, who had in former times dwelt in the cave; and he mentioned several caves similar to St. Robert's, in which human bones had been found. When we recollect that it is the great principle of our law, that no man can be condemned for murder unless the body of the person supposed to have been murdered be found and identified, we must at once admit the importance of the line of argument taken up by the accused.

The identity, in fact, of the skeleton was not made out: so far from its being proved to be Clarke's, it was not even shown to be that of a man; the sex was not proved—nor the age—nor, in short, any of the numerous points which, no doubt, would be elicited were the examination instituted at the present day. All that was ascertained was, that here was a human skeleton found as directed to be sought for by a wretch who had given information in expectation of pardon for his crimes. Why might it not be wholly a plot of Houseman's, to get rid of the unfortunate Aram? He might have buried the bones there himself, or found them buried when digging in the cave, perhaps for the concealment of plunder.

Let it not be thought that I am of the number of those who hold Aram to have been guiltless. The man is said to have confessed his crime before his execution. But my object in dwelling on the circumstances is to show the very insufficient circumstantial testimony on which the prisoner's life was forfeited, under the semblance of law and justice. The truth seems to be (as Paley said, and as now seems generally admitted), that Aram was chiefly indebted to his own eloquence and cleverness for the forfeiture of his life.

About the close of the seventeenth century occurred the deeply interesting trial of Mr. (afterwards Judge) Cowper, for the murder of a young quaker lady. There can at present be little doubt but that the deceased drowned herself in a fit of disappointed love: at the trial, however, and for a long time after, much contrariety of opinion prevailed as to the question, whether she was simply drowned, or murdered first and thrown into the river afterwards. The evidence for and against the prisoner was chiefly derived from the appearances of the body disinterred *six weeks* after burial. No water was found in the stomach or lungs—a fact deemed conclusive by one party that the lady *could not* have been drowned; but competent witnesses on the other side—among whom were Garth, Sir Hans Sloane, and Cowper, the celebrated anatomist—showed, according to a more correct pathology, that the introduction of water into the cavities on submersion is purely accidental, and that there were appearances enough in this case to indicate suicidal drowning. The lungs, stomach, and abdominal viscera, I may add, were found perfectly sound at the time of the medico-legal examination.

In the year 1828, there was another remarkable case, in which the chief evidence for the prosecution was derived from a medico-legal disinterment. You will probably remember the circumstances of the trial of Corder, for the murder of Maria Martin. The body of the victim was found buried in a barn, where it had lain for *eleven months*. On the trial, Mr. Lawton, the surgeon, stated, that he first saw the body in the hole where it was discovered. It was much decomposed, and had the appearance of having been buried for nine or ten months at least. He then described the dress, and gave so many particulars relative to what he observed, that the deceased was completely identified and the manner of her death exactly made out. A handkerchief was found tied tightly round the neck, forming a groove. In the neck there was also the mark of a perpendicular stab, about an inch and a half in breadth, extending deep into the neck. There was an appearance of injury to the right eye, and the right side of the face; it seemed as if something had passed in at the left side, through the cheek, removing the last two

grinders, and then out at the right orbit. This was apparently done by a pistol-ball. The lungs and chest were also examined, and there was found a wound between the fifth and sixth ribs, penetrating into the substance of the heart. This was effected by a sword, which was produced.

The sword was identified in court by the cutler who had sharpened it for Corder; and the head of Maria Martin was also identified, chiefly by the loss of a tooth in the upper and lower jaw. The observations made on the lungs, too, were important; there were adhesions of the pleura, and other marks, by which it appeared that the deceased had had cough and pain of the chest not long before death—which was precisely Maria Martin's case.

I have selected these few examples out of a considerable number which might be adduced, to prove the importance of a special attention to researches connected with disinterment.

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LECTURE ON THE PHYSICAL CONDITIONS OF THE TISSUES OF THE HUMAN BODY, AS APPLIED TO THE EXPLANATION OF VITAL PHENOMENA.

Delivered at the College of France in 1834, by F. Magendie, Professor of Physiology and Medicine in the College.

Dutrochet's Theory of Endosmose and Exosmose.—The Question of its Application to Physiology and Pathology considered.—Experiment opposed to the Endosmose Principle.—Permeability of Tissues by Vapors.—Resume.—Imbibition of Vapors by the Skin, from Without and from Within.

Let us to-day, gentlemen, return to the consideration of the phenomena of double imbibition, or endosmose and exosmose. At first I was inclined to think they might be of great utility, but upon further study I do not see how they can be applied to medicine or physiology. According to the explanation of M. Dutrochet, they do not consist in a simple phenomenon, in the passage of one fluid only through the membrane. There is, according to him, a double current, a double passage of fluid through the tissue, and in this respect they would differ essentially from imbibition; for example, here are two glasses containing water and a solution of gum, the one containing the gum-water is closed with a portion of bladder; according to the theory of M. Dutrochet, a double current is established through the bladder; the gum-water passes out into the endosmometer and the water enters; but I would have you remark, that one phenomenon is very insignificant indeed; the quantity of solution of gum passing out is excessively small. Here, again, is the result of an experiment which I made yesterday: you see here two glasses; in this one I placed some sulphuric acid, in the other some tincture of turnsole. The result does not by any means agree with Dutrochet's theory. Some of the acid has been imbibed, and passed into the glass which contains the tincture of turnsole. Now this is strange, for Dutrochet says, that sulphuric acid does not exhibit the phenomenon of endosmose, and he calls it, queerly enough, "the enemy of endosmose and exosmose." But no double current has been established; the turnsole has not passed out, and the sulphuric acid, as you see, remains perfectly colorless in this glass. Indeed, if you examine the several experiments adduced by Dutrochet in support of his theory, you will not find that they establish beyond doubt the existence of this double current. Let us consider one more experiment. Here is a glass containing some colored gum-water; I have closed it with a portion of skin (the external surface, I think, is out), and placed it in an endosmometer containing water. Now we ought to have the gum-water passing out, and the simple fluid entering; but since yesterday, that is within twenty-four hours, there is no trace of gum in the open vessel. The same experiment has been repeated

here, but I have reversed the skin and placed the epidermis inside; and, as you see, there is no symptom of an interchange of fluids; the water remains colorless, because none of the gum-solution has passed out. Hence I am inclined to doubt the justness of Dutrochet's theory, and would refer the phenomena of endosmose and exosmose to imbibition, rather than to any peculiar action between the fluids.

You may see here another experiment on the subject; this is the gall-bladder of a rabbit, which contains an excessively bitter fluid; the least drop of it is sufficient to give the characteristic flavor to a large quantity of water; I have placed it in a basin of water without observing any result; there has been no double current established; the bladder is not more distended than it should be, and we do not find any trace of bile in the external fluid; there is no bitterness perceptible to the taste.

I have already told you how Dutrochet placed a liquid in an endosmometer, and found that its passage was arrested by the presence of sulphuric acid, the fluid remaining stationary in the glass tube; hence he named sulphuric acid "the enemy of endosmose;" but this property is also possessed by sulphuretted hydrogen, which equally opposed the passage of any substance through a membranous tissue. We are unacquainted with the reason of this phenomenon, but the fact is certain. Dutrochet placed some fecal matter in circumstances favorable to the development of endosmose and exosmose, and found that no effect was produced, probably from the presence of sulphuretted hydrogen in the excrement.

As to the application of endosmose and exosmose to physiology, I must again repeat that in the present state of the science I do not find how it can be done usefully. Perhaps at some future time the phenomena may throw some light on several actions which we cannot explain in the animal economy, but at present I do not see how this may take place.

By-the-by, gentlemen, my notice has just been drawn by the assistant to this frog's skin, which I had otherwise forgotten. A few days ago, in lecturing on the skin, I told you that the frog was not furnished with an epidermis, and expressed a wish to try what effect this membrane might have in respect to endosmose and exosmose. I made two experiments with this object, and you may see the results here: in the first the glass containing gum-water was closed with a frog's skin, having the external surface outside; the fluid in the tube descended, and the gum-water passed out through the membrane; here then we have a phenomenon which should not have taken place according to the laws of exosmose, for the fluid should have ascended instead of passing out. The inverse experiment has been tried here; this glass was closed with a portion of the same skin, but the external surface was turned inwards, and the ordinary laws of endosmose have operated in this case.

Neither, gentlemen, I confess to you, do I see the application of endosmose, &c. to pathology. We have occasion every day to observe cysts of various descriptions plunged in serum contained in the cavity of the abdomen, but we do not see any traces or symptoms of endosmose or exosmose.

All the facts which have been stated to you regarding the physical and physiological phenomena of imbibition reposed on one grand basis, the porosity of our tissues, a property which gives rise to another phenomenon, which we now proceed to examine:—All animal tissues which imbibe either liquid or solid substances, are also possessed of the property of being permeable to vapors; this is a capital and most important fact, for man is perpetually placed in circumstances where he is exposed to the constant action of various gases and vapors; the air by which he is surrounded, which has so great an influence on his health and well-being, is a gas. The different objects with which he is placed in contact exhale various vapors, many of them of a deleterious character, and some-

times exercising a fatal influence on those exposed to their action. Hence it becomes important to ascertain in what degree the tissues of the living body are permeable to vapors, and whether the same laws which govern the introduction of liquid and solid substances into the economy, are applicable to the transmission of gaseous bodies.

Let us commence, as we have been always in the habit of doing, by making some experiments. Here is a glass bottle in which we had placed some ether, covering it down tightly with a bladder. The greater part of the ether has passed away, as you see, in the form of vapor, and very little remains in the bottom of the flask. The membrane itself is swollen by the ether *in transitu*, and thrown up in form of an arch upon the top of the bottle. The vapor has here, beyond all doubt, passed through the membrane; indeed you must be conscious of the fact, by the peculiar odor in the room. We have many other proofs of the permeability of dead tissues to vapors, which it is unnecessary to repeat; let us rather examine if the same phenomenon be exhibited in the living body. For this purpose we will force an animal to respire the strong prussic acid of Gay Lussac, which is prepared by concentrating the fluid by means of cold; and here let me remark, that you should be very cautious whenever you experiment with this acid. It is a most powerful poison, and requires much management in its use; indeed, more than one physician has been poisoned for want of proper precaution. In order to preserve it when once made, you should stop the bottle well, remove it from the action of light, and place it in an ice-cold temperature.

I shall now pass the nose of this rabbit slowly over the bottle, and if his respiration happen to correspond with the moment of passage, you will have the effects of the poison rapidly developed. (*This was done without any effect.*) The acid is, perhaps, as yet too cold, and the vapor does not, consequently, rise in sufficient quanity; but we do not want rapidity of effect. (*The animal was passed a second time over the bottle, and instantly killed.*) This experiment, gentlemen, shows that the vapor has passed through the membrane of the lungs, and the effect of the poison has been produced as rapidly in the present instance, as if it had been applied in the form of liquid to the animal's tongue or stomach.

In this other bottle we have some of the vapor of chlorine, a substance which possesses the property of arresting the poisonous effect of prussic acid, unless the latter has been administered in a dose sufficiently strong to kill the animal on the spot. We shall now try the efficacy of the antidote. This is a much larger and stronger rabbit than the one last experimented on. I pass his nose, as you see, once over the vapor of prussic acid; the characteristic effects are now produced; the animal's respiration has become excessively rapid, and the muscular power has been annihilated. As he is not quite dead, we will try the chlorine. (*The animal's mouth was held, for some seconds, over a bottle, containing the vapor of chlorine, but without any effect.*) In the present instance the poison has acted so rapidly, that the chlorine has not had time to develop its effects; it has been applied too late.

Here, gentlemen, is a physical phenomenon, in itself very simple, but of the greatest importance to the physiologist and the physician. Vapors are frequently employed as a remedy in the practice of medicine; thus in latter times, iodine and chlorine have been much vaunted in cases of certain pulmonary affections. The vapors of several substances act as energetic poisons. I need not dwell on this point, for we have, unfortunately, examples every day before our eyes. The vapor produced by burning charcoal is constantly employed as a means of suicide, and you know how frequently workmen are destroyed by the deleterious vapors which collect in confined places, such as wells, &c. It is, therefore, I repeat, a matter of importance to know that the membranous tissues of the human body are permeable to vapors, which are introduced into the economy, and there produce either good or bad effects, according to their respective natures.

This phenomenon is not confined to the lungs, although, for reasons which have been already explained, it takes place more readily in that part of the body than elsewhere; all the other membranes are permeable to vapors in a greater or less degree, but we do not well know whether the epidermis has the same modifying influence on the permeability of the skin to vapors, that it has on the imbibition of liquid and solid substances. This is a question entirely new, and which could not be solved before making certain experiments on the subject. Having made it my business to investigate the properties of the epidermis in this respect, I shall presently lay the results before you.

Let us now look back at what we have lately learned, before going to other subjects. We have examined the physical conditions of the human body in regard to vapors, and have found that the same effects are produced by a body in the state of vapor as if it had been applied in the shape of a solid. The condition, therefore, of the substance applied, has little influence in its effect. From the fact then adduced, we are entitled to add another important property to those already attributed to membranous tissues, viz., that they are traversed in a rapid manner by vapors. You have witnessed several experiments which demonstrate the truth of this proposition. An animal was compelled to respire the vapor of prussic or hydrocyanic acid, and the effect produced was rapid and energetic. The vapor of the poisonous fluid traversed the pulmonary membrane, and exhibited its usual fatal effects in a few seconds. The same would have happened in the human body were it exposed in a similar manner, for this poison acts equally on man and on animals. There is no difference to be observed, and you may safely conclude, as to its operation on the human subject, from what you observe to occur in other warm-blooded animals; indeed, its poisonous influence is even felt by the vegetable kingdom, and plants are destroyed by the contact of this noxious vapor.

Here then is a general fact, the application of which we shall presently see. All vapors may be received into the circulation through the medium of the lungs. We have numerous familiar examples of this fact: when you pass through a chamber lately painted and, consequently, containing the vapor of turpentine, you find the odor of the substance shortly after in your urine; this is a phenomenon analogous to the former. You have respired the vapor of turpentine, which has passed into the circulation through the pulmonary membrane, and has exhibited its effects on the economy in the same manner, and perhaps even more rapidly than if the substance had been taken into the stomach, and there absorbed. The effect in this instance is explained by the same physical conditions as in a case of poisoning by prussic acid, &c.

We shall now pass to the consideration of another question, and endeavor to determine whether the other membranous tissues and surfaces are permeable to vapors. The property is clearly possessed by the lungs; does it also belong to the skin and other analogous tissues? The latter question is not so easily resolved, but let us commence by making a few experiments.

You will find several facts contained in works on medicine and surgery, from which you will be led to conclude that the skin absorbs vapors in a rapid manner. The exhalations given off by animal or vegetable substances in a state of decomposition, are nothing but vapors, and you all know how energetically these miasmata sometimes act on the human body. This fact was particularly noticed by Bichat, and he endeavored to ascertain whether the absorption of the miasma took place through the medium of the lungs or skin; for this purpose he remained a considerable time in a dissecting amphitheatre, where the smell was excessively offensive, taking care to keep his head and face exposed to the air through an open window, in order to avoid respiring any of the miasma contained in the chamber.

But this experiment, to prove anything, requires the observance of certain precautions, which we do not know to have been observed by Bichat. For instance, he does not know how he entered the chamber, or whether he avoided respiring in traversing the space between the door and the window. This was a circumstance which it was absolutely necessary to take into account, because a single inspiration of the miasma may have been sufficient to introduce the deleterious matter into the economy, and explain its effects on the system without our having recourse to the idea of cutaneous absorption. The experiment of Bichat is, therefore, unsatisfactory, and does not justify the conclusions which he has drawn from it.

Gentlemen, I shall now show you the result of some experiments which I have made on the properties of the epidermis, as regards the imbibition of vapors. I do not mean to affirm that they will resolve the question, for it is one entirely new, and which requires investigation, but they are sufficient to illustrate the leading facts connected with the permeability of membranes to bodies in a state of vapor.

Here is a glass vessel in which I have put some ether, and closed the mouth as tightly as possible with a portion of skin; the internal surface of the integument is towards the atmosphere, and the epidermis regards the cavity of the bottle. I have now left it, perhaps for half an hour or forty minutes, and until the last two or three minutes there has been no evidence of the escape of the vapor. You as yet scarcely notice the characteristic smell of ether in the amphitheatre, and the epidermis has, consequently, resisted the passage of the vapor during that period of time. This, gentlemen, is an interesting experiment, for it shows that the epidermis does not act with respect to vapors like other animal membranes. During the first part of the lecture, you saw how a portion of bladder was rapidly traversed by the ether. Here, on the contrary, the skin refuses to transmit the vapor from the external to the internal surface, and we may hence conclude that the simple contact of deleterious vapors, miasmata, &c., with the cutaneous membrane, is not dangerous, because, in all probability, the living skin will exhibit the same phenomenon of impermeability.

Let us now, gentlemen, endeavour to see whether the skin be more permeable to vapors, from its internal to its external surface; I have closed this glass bottle, containing ether, with another portion of skin, the epidermis being external, and observe what has taken place; the skin is now swollen and excessively tense, because the ether commences to traverse it, but for seventy minutes there was no smell of ether in the room. This, gentlemen, is a new fact; the skin is much less permeable to vapors from the internal to the external surface, than *vice versa*. In the present experiment, the time required for the passage of the ether was seventy minutes; while in the former, where the epidermis was placed internally, the skin was traversed by the vapor in half that time. I have also made an experiment on the living body; my assistant placed his hand for twenty minutes in this oiled-silk bag containing the vapor of ether; and if any of the substance had entered the economy, its effects would be soon perceptible in the production of its peculiar flavour in the throat and mouth, as is experienced when an individual respires ether; but no such effect was produced; the living skin is not therefore permeable to vapors—at least they do not enter rapidly through this medium, for we are not entitled rigorously to conclude anything more from the latter experiment; perhaps, if the hand had been kept longer in contact with the ether, for an hour or so, the vapor might have been absorbed.

I shall now make another experiment of a similar kind before you. This rabbit has been enclosed, as you see, in a large glass, the head remains outside, and the upper part of the glass, surrounding the animal's neck, has been tightly closed by oiled silk; we have also placed a small bag of oiled silk on his head, and attached to it this glass tube, through which he respires. I now proceed to put some vapor of ether into the larger glass, and

if it be absorbed, we shall soon find the peculiar odor in the air issuing from the glass tube; as it is the first time of making the experiment, it may in all probability fail, for trials of this kind, like experiments in chemistry, require a certain dexterity in habitude; let us therefore change the substance, and introduce the vapor of prussic acid. I cannot say what the result may be, but it will at all events be interesting to see the effect of the poison applied in this manner. The vapor of concentrated prussic acid has now been introduced into the larger bottle containing the animal, and its effects are manifested almost as rapidly as if the poison had been placed on the rabbit's skin or tongue; he has died within two minutes and a half. This is one way in which we may prove the permeability of the skin to vapors, but it will be necessary to repeat the present experiment with more caution, for I am inclined to suspect, from the rapid manner in which the hydrocyanic acid has just acted, that a portion of the vapor must have escaped from the bottle, and been introduced by the lungs.

It results, gentlemen, from the facts I have stated to you, and from the experiments which you have seen, that the pulmonary tissue is very permeable to vapors, and that the cutaneous membrane is also permeable, but in a lesser degree; it would appear that half an hour at least is necessary for the transmission of a vapor through the skin. This is a fact of the highest importance, not only in the practice of medicine, but in the investigation of certain questions intimately connected with the welfare and happiness of society. There are many circumstances in which the lungs, or the cutaneous covering of the human body, are unavoidably placed in contact with deleterious substances in the form of vapor.

ON CERTAIN MENTAL ILLUSIONS.

In a memoir read by M. Esquirol before the Institute, in October, 1832, the learned author endeavored to establish the distinction between mental hallucinations and mental illusions: the former are the mere offspring of the disturbed mind, arising without any evident cause, and referable to no distinct operation preceding them; whereas the latter are the results of certain impressions made upon the body, but the nature of which impressions the insane strangely mistakes and perverts: the former are altogether mental phenomena; the latter are mental indeed, but generated from and depending upon previous corporeal influences. These corporeal influences are very generally painful sensations, either on the more immediate organs of sense, or on some of the viscera contained within the great cavities. A few examples will readily indicate that set of cases which Esquirol denominates "illusions."

Illusions depending upon a Disturbance of the Organic Sensibility of the Encephalon.

Case I.—A young lady, eighteen years of age, having for some time suffered from a severe pain on the crown of the head, at length insisted that there was a worm within her head devouring her brain. No reasoning could disabuse her mind of this illusion; and she was convinced that the only method of relieving her was the extraction of the worm. An incision was accordingly made through the scalp, and a portion of fibrine was drawn out, with much ceremony, as if to corroborate the truth of her prediction. She was satisfied, and expressed great pleasure. The wound was kept open for two or three months, by which time not only all the pain, but the mental illusion as well, had entirely subsided.

Case II.—A country woman was admitted into the Salpetriere, in consequence of intense pain at the top of the head, which she attributed to the presence of some animal concealed under the skin. An incision was made through the scalp at the pained spot, and a portion of an earthworm was then shown to the patient, as if it had been extracted from the wound. She testified great joy at the time, being assured, she said, of her speedy re-

covery; but the hope of this fortunate event was soon baffled, for, in a fit of rage, she tore open the issue which had been established at the wound, and the mind became as unhinged as ever.

Case III.—A lady, thirty years of age, who had fallen into a state of hypochondriasis after suffering great mental distress, was impressed with the idea that her brain had become petrified. Some time after, she thought that it had softened, and was in a fluid state. On the dissection of this patient, a scrofulous deposite was found in the interior lobe of the cerebrum.

Illusions depending upon a Disturbance of the Organic Sensibility of the Abdominal Viscera.

Case I.—Ambrose Pare mentions the case of a hypochondriac, who believed that he had some frogs in his stomach, and who was cured by a smart purgative or two, the attendants having cunningly introduced a frog or two into the night-stool before the patient went to it.

Case II.—M. Esquirol examined the body of a woman who had died at the Salpetriere; she had believed that some cruel animal was in her stomach. This viscus, at its pyloric orifice, was found cancerous.

Case III.—In 1832, there was a woman in the Salpetriere, who suffered from repeated attacks of severe colic. Her own idea was, that a regiment of soldiers lay concealed in her belly, and that she could feel them struggling and fighting with each other. Dissection shewed that a chronic peritonitis had existed for a length of time, and had glued large portion of the intestines together.

Case IV.—A woman, fifty-seven years of age, of a strong and sanguineous temperament, and so extremely devout and religious in her way, that she was styled by her keepers "la mere de l'eglise," because she was constantly talking of some scriptural subjects, was impressed with the belief that all the apostles and evangelists had taken up their residence within her bowels; moreover, that the Pope held his conclave there; and that, occasionally, even some of the Patriarchs of the Old Testament sojourned with his holiness. On examining the abdominal viscera of this woman after death, it was discovered that all the intestines had become agglutinated together, in consequence of chronic peritonitis.

Case V.—Similar morbid appearances were found in the abdomen of a lunatic, who believed that a devil had taken up his abode in his stomach to torture him. In this case the skin, over almost every part of the body, was singularly insensible to mechanical injury; it might be pricked, pinched, and cut, without the patient appearing to suffer any pain.

Illusions depending upon a Disturbance of the Sensibility of the Generative Organs.

A woman, well advanced in years, was haunted with the idea that the devil had crept into her womb, and that nothing could dislodge him from his dark abode. This woman died, and it was found on dissection that there were several hydatids on the external surface of the uterus.

In another case, in which the patient believed that some venomous animal had entered her womb, and was accordingly in the habit of pushing pieces of meat up her vagina to entice it down, a similar disease was found affecting the uterus.

Such are a few examples illustrative of delusions which appears to take their origin from corporeal impressions, acting upon a disturbed mind. We mean not to enter into any investigation of this most abstruse subject: our only motive has been to afford some authentic data to the inquirer.*

* Journ. Hebdomadaire, and Med.-Chir. Rev.

LECTURE ON THE THEORY AND PRACTICE OF MEDICINE.

By William Stokes, M. D.

Delivered at the Medical School, Park-street, Dublin.—Session 1833-34.

Nervous Symptoms in Typhus—Opinions of Dr. Clutterbuck—Typhus not Symptomatic of Cerebritis—Occurrence of all Nervous Symptoms independent of any appreciable Lesion of Brain—Nature and Treatment of Headache in Fever—Delirium, Researches of Louis on—Its Treatment in the Early and Advanced Stages of Fever—Use of Wine and Opium—Nature of Adynamia—Principles of Treatment of the Local Inflammations in Fever—Errors of the School of Broussais on this Point—Use of Stimulation at certain Stages.

GENTLEMEN,—At my last lecture I enumerated the symptoms of typhus, which are referable to lesions of the nervous system. The principal of these are the occurrence of headache, the different varieties of delirium, coma, spasms, subsultus tendinum, and various lesions of sensibility. Now, you are all, I believe, aware that the followers of Clutterbuck place the seat of fever in the brain, or, in other words, they look upon fever as being symptomatic of inflammation of the brain.

This doctrine has acquired a considerable degree of interest, from the circumstance of being supported and put forward by such high authority, and is therefore entitled to our notice. It must, however, be admitted, that it does not rest on a very secure basis, for it has been contradicted by the results of the recent investigations with respect to the pathology of fever. These investigations prove that lesions of the brain are in their nature analogous to those of other parts, and can no more explain the phenomena of typhus than similar affections of the lungs, or digestive system. It has been shown, in the first place, that lesions of the brain (which are supposed by Clutterbuck to be the cause of fever) are by no means constant in their appearance, that there is the most remarkable variety in their seat and extent, and that the appearances on dissection do not correspond with the symptoms observed during life. If we were to consider fever as symptomatic of disease of the brain, we should always expect to meet with lesions of the cerebral substance under such circumstances, just as we find proportional lesions of the lung in the fever of pneumonia, or of the digestive system in that of gastro-enteritis. Even in cases where these lesions of the brain are found to exist, we do not find that they are in proportion to the symptoms, for we may have severe delirium and headache in typhus with slight cerebral lesion, and, on the other hand, we may have extensive organic disease of the brain with a fever, in which the nervous symptoms are but little marked. Here, then, we have a character absent which should necessarily exist, if typhus was symptomatic of disease of the brain. Thirdly, the symptoms, referable to mere irritation of the nervous system, independent of typhus, have not the initiative, for we frequently observe the symptoms of typhus to precede those which belong to irritation of the brain. A patient in typhus will go on for days without exhibiting any symptoms of cerebral irritation, and then, perhaps, towards the termination of his illness, will get symptoms of disease of the brain. But they are not the first link in the chain of morbid phenomena. Again, in cases presenting a similarity, nay, almost an identity, of symptoms, *you will meet with the greatest possible variety in the nature, seat, and extent of the organic alterations.* It has been farther shown, that with the same amount of nervous symptoms, with symptoms perfectly alike in their nature, intensity, and duration, we shall find one class of patients presenting remarkable lesions, and another class with none at all. Lastly, we meet with the same state of the brain in cases where no typhoid symptoms existed, as in those where all the characters of typhus were distinct and prominent.

Now if we admit the foregoing facts, and I think they cannot be denied, we must reject the theory of Dr. Clutterbuck. The lesions of the brain are by no means constant in typhus, the symptoms observed during life do not correspond with the phenomena of dissection, we may have extensive organic changes with modified symptoms of typhus, and severe typhus with slight organic change, and we may have, in patients presenting similar symptoms, great organic changes, or none at all. The conclusion which has been come to by the most eminent pathologists of the present day on this subject is, *that, in fevers of an essential type, there is no single nervous symptom, which may not and does not occur independently of any appreciable lesion of the brain, nervous, and spinal cord; that the state of the nervous centres after death cannot explain the symptoms during life, and that the nervous symptoms in particular cannot be referred in many instances to any known organic alteration of the brain.*

This, gentlemen, is a conclusion which may appear humiliating, and you may think that it depreciates medicine by representing it as obscure, perplexed, and deficient. This, however, is not the proper way of considering the matter; you are only to inquire whether it be just and well founded or not, and then to steer as well as you can. We cannot say anything certain with respect to the nature of these and various other symptoms unconnected with any appreciable lesion of the nervous system; we merely observe them as facts, and find that they square with experience. Experience has shown long since that these symptoms frequently subside under treatment which could not be employed if they depended on inflammation. How could we explain the disappearance of delirium under the use of opium and wine, or the removal of spasms and subsultus tendium by stimulants, if they depended on active inflammation of the brain or its membranes? This is another fact which tallies exactly with those already mentioned, and showing that the nervous symptoms of typhus are frequently unconnected with inflammation of the brain.

One general observation may be made with respect to the nervous symptoms of fever, that the greater their number and intensity are, the more unfavourable is the prognosis to be. I may here mention, that the worst description of nervous symptons are persistent sleeplessness, constant headache, violent delirium, subsultus tendinum, and coma. All these point out profound lesions of innervation, and are met with in the worst case of typhus. They do not point out the existence of extensive *organic* derangement of the brain, or that you should treat the case by means adapted to deplete the head, but that the fever is of a severe character, and that the shock which the system has received is likely to endanger life. Headache is one of the most constant symptoms of fever. It is sometimes partial, sometimes general; it may be more severe at one time than at another, or in one part of the head than the rest, and it may be dull, acute, or pulsative. It may or may not be accompanied by other symptoms, such as heat of the head, throbbing of the arteries, and the different varieties of delirium. In cases of fever where there is sympathetic headache, without any other sign of cerebral irritation, we are not at all warranted in looking on the case as one of disease of the brain. With other symptoms it may, and, consequently, under these circumstances should command our attention, but alone it is to be looked upon as one of the general symptoms, or as symptomatic of some of those secondary affections which occur in the course of fever. When it is symptomatic, it is most generally connected with irritation of the digestive tube. There is nothing more common than headache in gastric fever, and you will constantly see this headache disappear after the application of leeches to the epigastrium. This I have witnessed, not in one, but in many instances.

Now, with respect to the treatment of the headache of fever, I may observe, that it must be more or less modified by circumstances. In mild and simple cases, where the pain of the head is not very severe, you may be content with cold applications, which you

will commonly find to answer very well, particularly where the headache is accompanied by heat of the scalp and throbbing of the arteries. You will also find the warm foot-bath of service, and you may, if necessary, increase its efficacy by the addition of mustard. Where the headache resists this treatment, you must have recourse to leeching the temples and behind the ears, shaving the head, and applying cold or iced lotions. Now it might be urged here, that if the best mode of relieving headache is found to consist in the application of leeches and cold lotions to the scalp, are we not justified in concluding that the symptoms in these instances are to be looked upon as depending on inflammation? I have stated to you, when lecturing on diseases of the brain, that headache was not to be considered as connected in all, or even many cases, with arachnitis; and besides it does not follow that the symptoms must depend on inflammation, simply because they have been relieved by antiphlogistic treatment. What does the occurrence of pain in the head prove? Nothing more than this, that there is an excited condition, a deranged sensibility of the part affected. This derangement of sensibility may be accompanied or not by organic disease, but whether it is or not, experience has shown that it may be relieved by the use of local antiphlogistic means. I think you may lay this down as a rule, with respect to the pain of the head in fever, that where you meet with headache or delirium, and find them connected with other symptoms indicating a decided affection of the digestive system, you should seek for the cause of the headache in the sympathies which attend irritation of the gastro-intestinal surface, and direct your plan of treatment accordingly. If a patient laboring under gastric symptoms, as red tongue, epigastric tenderness, swelled belly, and diarrhœa, complains of pain in the head, you may be pretty sure that the headache proceeds from sympathy, and that it will be most effectually relieved by leeching and other means calculated to relieve gastric irritation. There are two reasons for this: of all the secondary irritations of fever those of the digestive system are the most common; and they are, in the majority of cases, productive of more or less functional derangement of the brain, with which the gastro-intestinal mucous membrane is linked in the closest sympathy. I have seen cases of fever where the patient complained of bad headache, and where the symptoms were combated unsuccessfully from day to day by the application of leeches to the head, and yet I have seen complete relief obtained by putting a few leeches to the epigastrium. If, therefore, you find, in cases like this, pain on pressure, tympanitis, diarrhœa, thirst, and other signs of irritation of the digestive tube, you will direct your attention to the belly, and see whether the headache may not be removed by means adpted to subdue gastric irritation. What I wish to impress on you is this,—that secondary gastric disease will produce headache, and that this may be removed by applying leeches to the belly.

We now come to speak of a very important symptom in fever—delirium. I believe I may here assert that the same pathological observations apply to this symptom as to headache, and that, taken alone, it cannot by any means be looked on as a decided indication of actual organic or inflammatory disease of the brain. Before I enter on the subject of delirium, I wish to make a few remarks on the occurrence of hysterical symptoms in fever. In some persons, you will find that, at the commencement of fever, fits, like those of hysteria, will come on, and this may happen even in case of robust men. One of the worst cases of fever I ever saw was ushered in by these symptoms. The patient had violent fits of laughing, crying, and other symptoms of an hysteric character, and these were succeeded by profound typhus. Indeed, the complication of hysteria may be looked upon as favourable in all cases except fever; but the occurrence of hysterical symptoms at an early period of fever affords grounds for making a bad prognosis.

In fever we meet with two kinds of delirium,—the violent, and the low muttering delirium. The high and violent delirium is a disagreeable symptom, from the unmanageable

state of the patient and the difficulty of doing anything for him. It is most commonly observed in the commencement of the disease, whereas the low muttering kind is generally observed towards the termination. This is the most usual way, but sometimes the reverse takes place, and when this occurs, it is to be looked on as dangerous on this principle, that any departure from the ordinary course of things is unfavorable, and gives cause for a bad prognosis in fever. Thus the occurrence of low muttering delirium in the commencement, or of the violent kind towards the termination of the disease, is always alarming. Low delirium is most frequently observed towards the close of fever, and we find it always accompanied by other symptoms indicating a low and prostrated condition of the system, as subsultus tendinum, picking of the bed-clothes, involuntary stools and urine, hiccup, and cold extremities.

Let us consider how far we are to consider this symptom as connected with actual disease of the brain. Louis, who has devoted a considerable share of his attention to this point, has examined carefully the state of the brain in twelve fever patients who had little or no delirium, and in twelve others who died with violent delirium, and the following are the results of his experience: In the first table he places those who had no delirium; and here we find, that in four cases there was some redness of the cortical substance of the brain; in one inflammation of the optic thalamus; in one slight softening of the brain, and in the remaining six the cerebral substance was quite healthy and normal. Now, in the cases where violent delirium was present, the following circumstances were observed: In five cases the morbid appearances were slight, there being some redness and vascularity of the cortical substance, but no more; in one there was slight ramollissement; in one livid injection of the brain and its membranes; in the remaining five the substance of the brain was of a natural color and consistence, and appeared to be quite healthy. Now, in these two tables you will observe that the difference in the morbid appearances is extremely slight, and that the presence or absence of delirium seems to have very little connexion with the perceptible state of the brain. In those cases where there was no delirium, we find four patients presenting redness and vascularity of the cortical substance; in those which were attended with violent delirium, we find five patients similarly circumstanced. In the cases without delirium, there was one with inflammation of the optic thalamus, and another with ramollissement; in those where violent delirium prevailed, there was one with ramollissement, and another with dark venous congestion of the brain and its membranes. In the first table, where delirium was absent, we find six cases in which the brain was to all appearance healthy and normal; in the second table we find five cases similarly circumstanced. Recollect, too, that these observations were made by one of the most accurate pathologists in the world, a man who had no theory to support, who merely records what he has seen, and whose statements are therefore entitled to the most complete credence. With respect to induration of the brain, M. Louis remarks that he has met with it in two instances of fever; in one the patient was delirious; in the other the mental powers were unaffected. In the Clinique Medicale of M. Andral, we find that he has observed induration of the brain to be connected with stupor and coma. Thus we see that in one case this state of the brain is found in connexion with delirium, in another with stupor, and in a third with no appreciable lesion of the intellectual faculties. The conclusion, then, which we must come to is, that inflammation of the brain does not necessarily imply delirium, nor does delirium imply any certain disease of the brain.

In the foregoing tables, we have a healthy state of the brane with delirium, and a morbid state without it. Observe the practical deduction to be drawn from this. You might suppose that you could draw no conclusion from this which would not have a tendency to embarrass your practice, and depreciate the value of medical science. This, however,

is not the fact. The conclusion is an obvious and a just one, that, in the treatment of a case of delirium, *we are not to expect that we shall be always able to remove this symptom by treatment calculated to relieve inflammation*, because it may occur with or without disease of the brain. Whenever you meet with a case of delirium, you should carefully investigate its nature and origin, as far as you possibly can, and if it be probable that lesion of the brain is going on, you should direct your treatment to the head; but if it be merely sympathetic you must look for its source elsewhere, and regulate your treatment accordingly. You cannot always relieve delirium by antiphlogistic means directed to the head. This is an undoubted fact, and squares with what has been stated with respect to headache, for we find that delirium is frequently removed by measures which would be quite inadmissible if it depended on actual inflammation of the brain. In all cases of febrile delirium, where it is accompanied by pain of the head, heat of the scalp, throbbing of the arteries, and other signs of determination of blood to the brain, you should not neglect the employment of local depleting means. For this purpose you may use with great advantage the cold affusion, as recommended and practised by Dr. Abercrombie. I have seen patients who were for nights without sleep, and in whom the delirium was so uncontrollable that the strait waistcoat was necessary, and I have observed that those persons slept soundly and tranquilly after the cold affusion. In cases of high delirium with strong reaction, the use of blisters has been recommended. This practice appears to me to be questionable and hazardous, and I feel convinced that they very often do mischief. A much better practice is that of applying sinapisms to the feet. The strait waistcoat is a measure very frequently adopted in the treatment of delirium, but it is one which you should be cautious in employing. It is too generally resorted to from apprehension on the part of the attendants, and is continued through mismanagement. In Dr. Cheyne's valuable report on the epidemic fever of Ireland, he remarks, that some patients have perished from exhaustion in struggling with their attendants, or in endeavoring to free themselves from the restraint of a strait waistcoat. If a patient gets out of bed and walks about the room, there is not the slightest risk of his receiving any injury, provided he be properly covered. When he endeavors to get out of bed, the nurse should calm him if possible, and, if he perseveres, use her authority over him, but never resort to violence. She should even permit him to put on his clothes, sit on the side of the bed, or walk about the room, and wait until the violence of the delirium abates. This generally occurs in a short time, and the poor patient becomes quite amenable. Such are Dr. Cheyne's views. I believe, firmly, that the strait waistcoat is too often abused. Coercion should be used only in extreme cases, and where there is danger of life; and it should be dispensed with on the first opportunity.

In the advanced stage of fever, even where delirium is present, I believe we may often give wine with advantage. I have seen the tongue, which was dry and black, or red, become pale and natural under the use of wine, opium, and other stimulants. This tallies exactly with what I mentioned *as to the tongue being rather an index of the state of the whole system, than of any particular condition of the intestinal canal.* With respect to the use of wine, Dr. Graves remarks, that it is a common opinion that wine should not be allowed while the patient's eyes are red and suffused. He is of a different opinion, and thinks it may be often given with safety and advantage even in this state. "It should be borne in mind," says Dr. Graves (and this is important), "that want of sleep will make the eyes red and suffused, and this being very common in fever, it cannot be brought forward as an argument against the use of wine. Neither does hot skin contra-indicate the use of wine, particularly when there is at the same time a tendency to coldness of the extremities." Now, to come to the subject of delirium, so far as this is connected with giving wine and stimulants, or withholding them, Dr. Graves thinks, that when the delirium is

violent wine should not be given. I would modify this assertion, and say, that it should not be given in the delirium which comes on at an early period of fever; but in the advanced stage I have seen it do good. The patient may be irritable, restless, and delirious and yet in a state which demands the use of wine and opium. You will find patients in the advanced stage of fever talking incoherently, and incapable of giving direct answers to your questions. This state of mind is frequently accompanied by an anxiety about their illness, and want of sleep. Now, to procure sleep and remove the delirium, you will have recourse to the use of wine and narcotics. "Headache," says Dr. Graves, "is, at any period of fever, a bad circumstance; for it does not allow the patient any sleep. Now, we must, in the first place, endeavor to remove this symptom, by depleting the head and by purgatives. These measures frequently succeed, but sometimes they fail, and we cannot pursue this line of treatment any further. (This is the case to which I have already alluded.) In this case," says he, "we must prescribe an opiate to procure sleep, and from this sleep the patient often awakes much improved. Before you employ the opiate, you may apply a blister to the head." Much benefit may be derived from the use of the common starch injection with tincture of opium. Thirty or forty drops of laudanum in two or three ounces of the mucilage of starch, is a very good way of employing opium to procure sleep in fever. The general rule which respect to the use of opium is this: *Where you have nervous symptoms remaining after treatment calculated to remove inflammation, or where they have occurred unaccompanied by any signs of inflammation of the brain,*—in these cases I feel no doubt that opium may be employed with safety and success: in fact, that it is the best means you can adopt. Observe, all that I now state is founded on facts, and independent of any theory. You will observe, too, that it squares with the pathology of fever given in a former lecture, namely, that we are to look upon it as a general affection of the whole system; and that the presence of any one single symptom does not necessarily imply the existence of local inflammatory disease. There is one practical remark with respect to local inflammation which I have already made, but I shall here beg leave to repeat, as it is connected with the point in question. When we compare the three great cavities with respect to the comparative frequency of inflammatory disease observed in them, we find that the account stands as follows:—local inflammatory disease is most frequent in the belly, next in the chest, and lastly in the head. We much more frequently meet with organic affections of the digestive system in fever, than of the pulmonary, and of the pulmonary than of the nervous.

In the advanced stage of fever, we have often to combat with a very distressing symptom, namely, coma. The patient lies in a state of lethargic stupor, and cannot be roused; or, if he exhibits any signs of consciousness, it is only for a moment, and then he relapses again into the same stupid state. This is a bad symptom, but not a fatal one if it be properly managed. What seems to answer best is, keeping the head cold, and using counter-irritation. These two measures may appear inconsistent with each other, but they are not really so. Some of the worst cases of febrile coma which I have seen recover, were those in which blisters were applied to the back of the head, or vertex, or nape of the neck, the rest of the head being kept cool. In addition to these measures, you may employ counter-irritation to the extremities with advantage. You will see, in the works of Lallemand and Mackintosh, some very remarkable cases of coma, where the patient was, as it were, snatched from the jaws of death by pouring boiling water on the extremities, at the same time that the head was kept cool. In the advanced stage of fever, where the skin and extremities are cool, the existence of coma does not counter-indicate the use of wine. You may also employ musk, in doses of ten or fifteen grains every third hour, either alone, or in combination with camphor or carbonate of ammonia. These, with blistering the head and keeping up counter-irritation in the lower extremities, are

the principal curative means used in the treatment of coma. I shall conclude this lecture with some observations on adynamic fever. Whenever you meet with this remarkable prostration of strength, it will be necessary for you to inquire carefully into its nature. You must here bear in mind two propositions which should never be forgotten,—1st, that the adynamia may be secondary, and produced by visceral lesions, for the removal of which antiphlogistics may be necessary; and, 2dly, that it may exist as a consequence of the morbid state of the whole system, and independent of any decided local inflammation. The first of these is called false, the second true adynamia. One of the most important questions in fever is connected with this point, and I beg your particular attention to it. It was long taught, and is to a certain extent still believed, that fever is a disease of debility; and hence all the phenomena indicative of this debility were treated by stimulants; and it is melancholy to reflect that, even at the present day, hundreds of persons are sacrificed at the shrine of this dogmatism. Now, when you recollect that fever most commonly presents a group of local inflammatory affections, and that the excess, or extent, or seat of a local inflammation will produce debility, you will very readily perceive that there are two causes for the adynamia of fever,—one the reaction of local disease on the constitution, the other depending on a peculiar morbid state of the whole system; and it is in striking a balance between these two causes that the judgment of the physician consists, and it is on the accuracy of his judgment that his success will decidedly hinge. In all cases where the prostration is unconnected with inflammation, or, even if inflammation should exist, where antiphlogistics can be no longer employed, you must have recourse to the cautious but decided use of stimulants. In some cases, particularly where the prostration is not excessive, you may, at the same time that you are prescribing stimulants, employ local antiphlogistics and counter-irritants with great advantage. When I say this, I do not wish you to believe that, in treating the inflammatory affections which arise during the course of fever, you are to proceed with the same boldness as in original simple inflammation. I have before marked the distinction between them. In the secondary local inflammations of fever, where profound lesion of innervation and a morbid state of the fluids exist, you should always modify the activity of your antiphlogistic measures; but, on the other hand, where the local inflammations are simple, and the constitution strong, your measures must be prompt and energetic. There is one great rule which is applicable to most fevers:—In the early stages, antiphlogistics are required; in the advanced, stimulants and tonics. This rule applies not only to fevers, but also to most cases of local diseases. In the early stage of fever, you may always employ the antiphlogistic treatment, so far as regimen, local depletion, and the prohibition of all stimulants are concerned; in the latter periods, where the patient's strength is reduced from depletion, extent, or duration of disease, and want of nutriment, your object must be to support the strength, and even to give stimulants. This is the great point which has been overlooked by the school of Broussais. They looked upon fever as depending on local inflammation, and concluded that stimulants were inadmissible *at any stage of the disease;* and their practice was accordingly to continue the use of antiphlogistics throughout the whole case. By thus neglecting to support the system, they permitted exhausted nature to sink, ignorant of the fact, that while you are taking measures to remove local inflammation, you may at the same time give nutriment to support strength, *and that at certain periods of all inflammatory affections stimulants become antiphlogistics.* The same thing occurs in local inflammation of a simple and original character, as in fever. In healthy inflammation we cannot pursue the antiphlogistic plan all through; after a certain period it loses its effects on the local disease, and it will run the patient down if persevered in; a cure is to be obtained only by the use of stimulants and tonics. So it is with respect to fever, in the advanced stage of which stimulants become antiphlogistics.

The great rule, then, with respect to the treatment of adynamia is this:—First ascertain if there is any existing local inflammation, and, if it be of sufficient extent and intensity to produce prostration, adopt means to modify or remove it, as far as your patient's strength will permit; in the next place, if you find no local inflammation to account for it, or if it occurs at an *advanced stage*, when the powers of life are sinking, give wine and stimulants to support nature in the struggle which she is making with disease. In the treatment of the secondary local inflammations which arise during the course of the fever, we should always endeavor to moderate the symptoms as far as we can, and gain time. If we can succeed in prolonging life, we give our patient every chance for recovery, and allow the powers of nature time and opportunity to act. Hence it is that one of the most important objects of the physician, in the treatment of the advanced stage of fever, is to prevent his patient from becoming too much debilitated. Even though local inflammations should be present, yet, if the patient be sinking and the fever of considerable duration, he knows that his only resource lies in judicious stimulation, which I fully believe not only acts beneficially on the general fever, but also on the local disease, whatever it may be. In all probability the original affections have changed their character, and the irritated capillaries have passed from a sthenic to an asthenic state; in other words, to a state where antiphlogosis will be, to them, insufficient, and, to the disease, dangerous, but where stimulation is their cure, and also what nature demands. The great point is to know the exact time when we should change our practice. This period occurs in all fevers, but the time of its supervention is infinitely various; and it is in the knowledge of this, as well as in striking a proper balance between the dangers to be apprehended from local inflammation on the one hand, and constitutional debility on the other, that the great nicety of treatment consists. It would be impossible to teach this in a lecture; the only way in which it can be learned is by exact and long-continued clinical observation.

LECTURES ON FORENSIC MEDICINE.

Delivered by Dr. Hay Graham, at the Westminster School of Medicine.

Impotency.

Gentlemen,—I now proceed to treat of impotency and sterility, two subjects which, however frequent in occurrence, are, from that feeling of delicacy every well regulated mind ought to possess, seldom submitted to medico-legal investigation. Previous to entering into their medical history, I shall, as usual, commence with their legal consideration.

Impotency, though not frequent in either sex, is comparatively more rare in the female. In the male it denotes an incapacity to consummate, which consummation consists in "erectio ac intromissio penis cum emissione seminis." In the female, impotence is generally limited to an impervious vagina.

As a cause of divorce, it must be proved to have existed previous to marriage; that consummation has not taken place; and, should the wife have been a spinster, that she is *virgo intacta*, although *apta viro*; in this case the contract is null and void *ab initio*. It is laid down by the editor of Blackstone, that when corporal imbecility arises after marriage, the marriage is not vacated, because there was no fraud in the original contract, and one of the ends of marriage, viz. the legitimate procreation of children, may have been answered.

As the medical jurist may be called on to decide on the subject of impotency, 1st, in a suit of divorce; 2dly, in an accusation of rape; and, 3dly, in a disputed case of parentage on either side, we will briefly consider the various causes from which it may arise. These causes will be found to be either physical or moral, and may proceed, 1st, from

some organic lesion, as the absence, the imperfection, or the diseased state of the organs of generation; 2dly, from some impediment or irregularity of the emission of the seminal fluid; 3dly, from the want of the power of erection in the penis.

1st. Many authors have asserted that the absence, either congenital or accidental, of the penis, is necessarily accompanied with impotence. When treating on the subject of the violation of virgins, I shall bring forward sufficient proof to satisfy you, that as the law has decided intromission not to be necessary to constitute the crime of rape, neither is it necessary towards impregnation, for pregnancy has frequently occurred where the *hymen* has not been perforated *hasta virili*, and where intromission consequently could not have taken place. Indeed there is a recent case, which you may recollect to have seen in the police reports, where a young married woman, in a fit of jealousy, concealed a razor, with which she removed her husband's penis whilst *in coitu*, and which she most completely effected close to the pubis. Notwithstanding the hemorrhage, he recovered, and some time afterwards cohabited with another young woman, with whom he illegally intermarried. His first wife having expressed much sorrow and repentance for her fault, he subsequently returned and lived with her, on which desertion his second wife appeared before a magistrate to affiliate a child to him, of which she was pregnant. In this case there could have been no intromission into the vagina, since there was nothing to intromit.

"In some malconformations, the ureters are found terminating in the perinæum or above the os pubis; sometimes the penis is impervious, or there is curvature, a scirrhous state of it, or a paralytic one, induced by injury to the nerves or muscles of the parts, an unnatural termination of the penis, the extremity of the canal of the urethra terminating at some other place than its natural situation, and are therefore causes of impotence. Belloe relates a case where the ureters terminated at the bottom of the frænum; the man had four children resembling himself, and, what is still more remarkable, two of them had the same malconformation. Much, in such cases, must depend on the distance the orifice is thrown back; if very far, there is every reason to believe the marriage would be unfruitful."—*Bech.*

The absence of the testes, or a diseased state, arising from atrophy or cancer, so that they cannot perform their functions, necessarily causes impotence. But it does not follow that, because the testes may never have descended into the scrotum, the individual should be impotent; on the contrary, such are generally reputed more vigorous in this respect than others.

2d. Many causes may give rise to an impediment in the emission of the semen masculinum. Sometimes the cavity of the urethra is so much contracted and compressed by the spastic violence of the erection, that the seminal fluid cannot pass out, and issues only when the erectile turgescence of the penis has diminished. A stricture of the urethra may produce so much contraction as not to allow of its escape, or may obliterate the orifices of the canals through which it is conducted into the urethra.

3d. The want of power of erection in the penis proceeds from impotence in the nervous system. Anaphrodisia, or the absence of venereal desires, may be either naturally brought about by old age, or produced accidentally from different causes, and is either permanent or temporary, relative or absolute. This absence of desire sometimes extends even to aversion and antipathy towards the sex. Dr. Gall, who considered the cerebellum to be the organ of physical love, or the seat of the instinct of propagation, attributed this absence of desire to the want of development in this organ. But indifference for the sex more frequently proceeds, in man, from the absence or the atrophy of the testes, which, according to this celebrated author, brings on a sort of atrophy, or, at least, a diminution in volume of the cerebellum. For the same reason concussions and affections of this part of the brain, arising from blows or wounds, frequently produce impotence.

Constant and profound meditation, an austere life, and solitude, sometimes diminish to such an extent the action of the brain relative to the instinct of reproduction, that all desire has ceased, and the individual becomes incompetent to the act.

I remember, when attending the lectures of Dr. Gall, his saying, that such priests of the Catholic Church as were considered in the odor of sanctity and chastity, were also remarkable for the atrophy or withering away of the genital organs.

A great number of affections of the mind produce impotency, the physical wants of the body being overpowered by these affections and impressions. Thus the pride and self-gratulations of conquest, the transports excited by the possession of the object of our most ardent desires, will suddenly take away the power of satisfying them. On the other hand, a timid and respectful love, admiration bordering on devotion, or the fear of performing badly the conjugal rite, may have the same effect.

John Hunter relates a case where he prevailed on a person in this situation to pass six nights with his wife without attempting to have any connexion with her, whatever might be his power or inclination. He afterwards assured Mr. Hunter that his resolution had produced such a total alteration in the state of his mind, that the power of connexion soon recurred; for, instead of going to bed with the fear of inability, he went with fear that he should be possessed of so much desire, and so much power, as to become uneasy to him, which really happened; and, having once broken the spell, his mind and powers went on together, and they never relapsed into their former state of imbecility.

Disgust is also a frequent cause of temporary impotence. "Morositas, contemptus, ira, tristitia, corporis immunditiis ac fœtor, Venerem primario supprimunt." The imagination is sometimes the cause of temporary impotence with regard to particular females; as in the famous case of the Earl of Essex and Lady Frances Howard, in 1613, in which the marriage was declared void, because the Earl, on his own confession, was impotent with regard to his lady, although he had no defect or impediment, and was able to copulate with other women. This, in law language, is called *impotentiam* or *malificium erga hanc.*

The following is an account of this case:—The Countess, having transferred her affections to Viscount Rochester (afterwards Earl of Somerset), and being desirous of a divorce, accused her husband of impotence; asserting that, during three years, the period of their marriage, the Earl had never been able to succeed in having connexion with her, and that she was still a virgin. Upon this, a jury of peeresses and matrons were assembled to examine her. It is said that she substituted in her place a young woman of her own age and size. The jury pronounced her a virgin, and that she was well organized and adapted for children. The Earl, on his answers, admitted his inability to know her, but denied his impotence as to others, and expressed his belief that she was incompetent for copulation. Many witnesses were examined, and objections raised on the propriety of dissolving the marriage on such grounds. It was finally decided by a small majority that the marriage should be dissolved, which accordingly took place. On the proceedings of this trial, there is reference to the case of one Bury, tried in 1561. His wife cited him before the Ecclesiastical Court, on the ground of impotence, and the physicians deposed that he had but one testicle, and that no larger than a bean. The want of access was also proved, and a sentence of divorce accordingly passed. After some time Bury married again, and had a son by his second wife. A question arose, after the lapse of some years, whether the offspring was legitimate, and it was decided that *the second marriage was utterly void,* because the Ecclesiastical Court had been deceived in the opinion they had given on the impotency of Bury.

The most remarkable case, perhaps, on record, is the one I alluded to when speaking of trial by congress.

On the 2d of April, 1653, the Chevalier Rene de Cordonan, Marquis of Langey, aged twenty-five years, married Mademoiselle Marie de St. Simon de Courtomer, between thirteen and fourteen years of age. The commencement of this marriage was happy. When the husband was absent, his wife used to express in her letters the lively impatience she experienced for his return, and always addressed him with that tenderness of affection which constitutes the happiness of wedded life.

This good understanding continued during four entire years, that is, until the year 1657, when Madame Langey accused her husband of impotence. She carried her complaint before the legal authorities, who ordered fit and skillful persons to visit the parties. These delegates, having made their visit, declared in their report, that they found each of them in that fit state in which they ought to be as man and wife. Madame de Langey, in order to invalidate this report, pretended that, if she was not a virgin, it was on account of the brutal violence of her husband, who had recourse to every means, in his impotent endeavors to gratify those passions, which were as furious as they were fruitless. The Marquis, piqued at this reproach, demanded the trial by congress; the judge ordered it; Madame de Langey appeals against the decision, but it was confirmed by a decree.

To carry it into effect, a place is made choice of, and a jury, composed of five physicians, five surgeons, and five matrons, are assembled. It is unnecessary to relate the disgraceful and obscene details with which this jury filled their reports after the termination of the congress; suffice it to say, that the result was not in favor of the Marquis, and the marriage was declared void by a decree of the 8th Feb., 1659, which condemned him to the costs of suit, ordered the lady's fortune to be restored, and strictly forbade him to contract another marriage, whilst it allowed Madame Langey, now Madlle. de St. Simon, to act as she might think proper, being at full and perfect liberty to enter into any fresh ties.

The day after this decree the Marquis entered his protest before two notaries, declared that he did not acknowledge himself impotent, and that, notwithstanding the prohibition to marry again, he would enter into the marriage state as before, whenever he judged *apropos*.

Madlle. de St. Simon contracts marriage with Monsieur Pierre de Caumont, Marquis of Boisle, the issue of which marriage were three daughters.

At the same time the Marquis of Langey marries Madlle. Diana de Montault de Navaille, and this marriage is followed by the birth of seven children.

The Marchioness of Boisle died in 1670, leaving a clause in her will in which she nominates a friend to terminate, by amicable arrangement, the suit which was still pending between her and the Marquis of Langey; in 1673 this friend dies without any thing being settled.

During the litigation which took place on the death of the Marchioness, between the Marquis of Langey and the Marquis of Boisle, to decide the fate of the children of the former (a delicate affair which greatly embarrassed the judges), it appeared that the orders left by the Marchioness when dying, clearly brought to light the stratagem she had recourse to, when she managed to obtain a decree, in 1659, by which her marriage was annulled.

The Minister of Public Justice availed himself of this opportunity to obtain the abolition of the useless and infamous proof of virility by trial of congress. Consequently, on the 18th of February, 1767, it was decreed that the proof of congress should be for ever abolished.

I have detailed this trial, because you will not meet with it in any modern work, and it is the last which took place. This mode of ascertaining the impotence or virility of a man was of great antiquity. It was in vogue before the time of Justinian (towards the fifth century), who abolished it, as opposed to the purity of the Christian religion.

Justinian decreed that a husband might be repudiated without the wife losing her dower, if, during two years, he has not been able to consummate the marriage; afterwards he extended the period of probation to three years. Montesquieu observes, that in such a case two years were as good as three, and three no better than two.

There are many causes of impotence which may be considered as doubtful or uncertain, such as bifurcation of the penis, strictures of the urethra, phymosis and paraphymosis, sarcocele, hydrocele, scrotal herniæ, and certain fungus hæmatodes of the scrotum; also hypospadias (*ὑπὸ*, sub, and *σπάω*, traho) where the penis is drawn downwards, and epispadias, where the penis is drawn backwards, in which cases, the gland being imperforate, the urethra opens more or less near the pubis, either in a superior or inferior part. To these may be added severe injuries of the sexual organs, carcinoma of the testicles or penis, all affections of the head and spinal marrow, whether from a fall, blow, wound, or poison, many affections of the mind, a cachectic state of the body, and a great variety of diseases.

The following may be considered as the cause of impotence in the female :—

The absence of the vagina is necessarily accompanied with impotence; also the obliteration of the genital organs, whether adventitious or congenital, caused either by the union of the labia or of the caruncule myrtiformes; but the thickness and resistance of the hymen, or the presence of another membrane situated much higher, and which may co-exist with it, cannot be considered causes of impotence, since they may be easily remedied by incision. Also the vagina opening into the anterior parietes of the abdomen, or communicating with the rectum, ought not to be considered a cause of impotence. Barbaut relates two cases where the vagina communicated with the rectum; in the one delivery took place in consequence of the parts being torn and rent asunder as far as the meatus urinarius, and in the other by means of an incision, which allowed of the escape of the fœtus.

Professor Rossi relates a similar case of a young Piedmontese, where there existed a direct communication between the vagina and the rectum, which was congenital; by means of an incision delivery took place. Morgagni makes mention of one Gianella, who was called in to deliver a woman about forty years of age, where the vagina opened into the anterior parietes of the abdomen, and who was obliged to dilate the exterior opening so as to allow of the passage of the infant.

The extreme contraction of the vagina may be either curable or incurable. It may proceed from a considerable depression of the os pubis, from hypersarcosis, soft fungous excrescences, from callosities, tumors, and other causes, which sometimes resist all the means of art. Van Swieten mentions the case of a woman, who had been married above three years. The marriage was about to be annulled on account of impotence, the vagina not being larger than sufficient to admit a common goose-quill, notwithstanding the efforts of a vigorous husband. The sides of this canal were hard, and as if callous; by the use of emollient fomentations and pessaries of different sizes, made of gentian root, it became sufficiently dilated to allow of coitus taking place.

In the "Memoires de l'Academie des Sciences," we read an account of a young woman who was married at sixteen, where the vagina was so narrow as scarcely to admit of the introduction of a common writing-pen; the menstrual discharge flowed with difficulty and with pain. There was every reason to believe that the superior extremity of the vagina was even more narrow than the inferior; coitus was declared utterly impracticable by the medical men; notwithstanding this, after the expiration of eleven years from the marriage the woman became pregnant, although the contraction of the canal was not in the least diminished; about the fifth month of pregnancy the vagina began to dilate itself, and finished by acquiring those dimensions necessary to the accomplishment of delivery.

Prolapsus of the vagina or of the uterus do not necessarily cause impotency; they generally admit of being remedied, and are sometimes cured by pregnancy.

Sterility is that condition of the organs of generation which does not allow of conception; whilst *impotence*, as has been already mentioned, is that condition of the parts which does not allow of coitus. A man who is impotent is necessarily sterile; but a woman may be impotent without being sterile, because, when the impediment to coitus is removed, conception may take place.

The causes of sterility in a woman are the following: the absence of the uterus, the deficiency of a cavity in the interior, the occlusion or agglutination of the orifice, the absence of both the ovaries, scirrhus, carcinoma, or dropsy of the ovaries, the absence of the spermatic arteries, the obliteration of the Fallopian tubes, malformations, as where the vagina terminates in a cul de sac, or opens into the bladder. But the vagina opening into the rectum, or into the anterior parietes of the abdomen, is not a cause of sterility, as has been already noticed.

Another cause of sterility arises from a peculiar disposition or state of the body, where, notwithstanding the organs of generation are to all appearance in a healthy condition, yet the woman does not conceive; but at the expiration of an indefinite period the sterility ceases, either from the disease which may have occasioned it being cured, or from some change having taken place in the temperament or peculiar state of the body. Thus we frequently see women bear children after having been barren for fifteen or twenty years.

Fluor albus, menorrhagia, or even cancer of the uterus, though they may render a woman less susceptible of conception, yet they do not prevent impregnation from taking place; neither, as I have previously observed, does the non-appearance of the menses or the absence of voluptuous sensations offer an impediment to conception, for many women have become pregnant who have never menstruated; others again, whilst in a state of insensibility, either from intoxication, stupefaction of narcotic drugs, or even asphyxia. Other women have proved very prolific, who never experienced the smallest spark of pleasure or enjoyment whilst in coition; but, on the contrary, received the embraces of their husbands either with a painful sensation, with cold indifference, or even with disgust.

If, when there is no malformation of the parts, it is difficult to account for the sterility of a woman, it is, under similar circumstances, still more so to account for that of a man; suffice it to say, that a man becomes sterile, or, if you prefer the term, he becomes impotent when the spermatic animalculæ cease to be formed.

We thus perceive that impotence and sterility may be either permanent or temporary; and from the cases cited we may infer, not only how difficult it frequently is to ascertain its existence, but how much the difficulty is increased to distinguish between that which is permanent and that which is only temporary; and therefore, when it is unaccompanied with any organic lesion of the parts, which renders it no longer a matter of doubt, with what extreme caution we ought to deliver an opinion which may involve interests of the highest nature.

TREATMENT OF A CASE OF DELIRIUM TREMENS.

To the Editor of the Medical Gazette.

SIR,—The case of delirium tremens succeeding apoplexy, related in your journal of last week, by Mr. Robbs, brought to my mind a similar one which occurred in my practice about the middle of last July. As the case ended favorably, you may, perhaps, consider it not altogether uninteresting.

I was called to a labouring man on Wednesday, who was lying in a state of insensibility. I was told he was in the habit of drinking freely, when he could obtain liquor. On the Sunday and Monday previous he had been drinking. On calling to him, or shaking him

he would open his eyes with a wild stare, but seemed to have scarcely, if any, consciousness of what was going on around him. He would then relapse into his former state. His pulse was not much disturbed; on touching it, it gave the idea of being passively distended; the pupils were contracted; the face rather pale. I took about 12oz. of blood from his arm: the pulse became softer, but in other respects he remained nearly as before. I then ordered him four pills, each containing one drop of croton oil; one to be taken every two hours. He took all these without effect. I then sent him four more, with similar directions. On the following morning (Thursday), I found him considerably better: the croton oil had acted well. He was sensible, but still had a wild look. His tongue was cleaning at the edges; there was a brown yellow fur in the centre. I ordered him to take immediately a pill of calomel and colocynth, and a purgative draught every three hours. At night symptoms of delirium tremens came on, but he was not violent; he wanted to leave the house, but was easily restrained. I gave him tinct. opii, ℥xl. immediately. On Friday morning he was not better. I then ordered the same quantity of laudanum every five hours. He took three doses without effect. I then directed them to give him a pint of porter, which was the drink he was accustomed to; he drank it, and fell asleep very shortly after. When I saw him again he was convalescent.

I should mention that in this case, as in Mr Robbs', there was rather profuse perspiration.

I am, sir, your obedient servant,

GEORGE PARSONS.

53, Upper Marylebone-street, Portland-place, October 24, 1834.

LECTURE ON FORENSIC MEDICINE.

Delivered by Dr. Hay Graham, at the Westminster School of Medicine.

Hermaphrodites, or Doubtful Sex.

Gentlemen,—I now proceed to speak of hermaphrodites, or persons of doubtful sex. The word hermaphrodite is compounded of two Greek words, the one Ἑρμῆς, which is the Greek name of Mercury, and the other Ἀφροδίτη which is greek for Venus. Hermaphroditus was, according to the Greek mythology, the son of Venus and Mercury. When about fifteen, he set out on his travels to see the world. One day, whilst bathing in a fountain, Salmacis, the nymph of the fountain, fell suddenly in love with him, and attempted to seduce him; but Hermaphroditus remained insensible to the warmth of her passion, and deaf to her urgent entreaties. Upon this Salmacis embraced him closely, and entreated the gods to make them two but one body. Her prayers were heard, and Salmacis and Hermaphroditus, now two in one body, still preserved the characteristics of both their sexes.

Thus the term hermaphrodite became applied to all such persons as were supposed to combine in themselves the organs of generation of either sex, and were therefore supposed to be capable of performing the functions proper to each, both of impregnating and of being impregnated, the *receptio et emissio seminis*, of begetting or of conceiving.

This, gentlemen, is perfectly consistent with nature, and actually takes place at one and the same time in snails and other molluscous animals. But whether it ever takes place in the higher orders of vertebrated animals, especially in man, is the subject of present investigation.

Hermaphroditism is connected with forensic medicine, inasmuch as it is sometimes of great importance to ascertain the sex of a child which has died shortly after birth, not only as regards the right of a father to hold real property, as tenant by the courtesy of England, but also as respects the law of descent [illegible] if a woman be tenant in tail male, and

have only a daughter born alive, the husband is not thereby entitled to be tenant by the courtesy, because such issue female could never inherit the estate thus limited in tail male; and it is, therefore, the professional duty of every accoucheur or medical attendant, at the time of a birth, very carefully to observe and note in a general book the sex of every child delivered in his presence, as the same, especially if it admit the receipt of his professional remuneration, may, even after his death, be received as evidence of the fact."—*Chitty*.

Therefore you perceive it might become an important question in law, both as respects the father's claim to hold land as tenant by courtesy, and also as respects the reputed hermaphrodite's claim to hold land descending in tail male: in addition to this it might also become of great importance in a question of nullity of marriage.

In prosecuting the consideration of this subject, the cases of hermaphroditism may be reduced to four heads, viz: 1st. Malformations of the male. 2d. Malformations of the female. 3d. Those in which there is a fusion or reunion of the organs of either sex; and 4th. Those in which there is an absence of the organs of either sex.

1st. The apparent hermaphroditism of the male generally proceeds from an organic malformation of the scrotum, which about the *raphe*, or middle part, has a slit or fissure, formed by two folds of the skin, presenting the appearance of the lips or labia of the vulva, especially when the testicles have not descended, but have remained in their embryotic position, or behind the inguinal ring. This greatly resembles, and is indeed a similar malformation to hare-lip. Sometimes this fissure consists merely of a deep indentation of the raphe. The resemblance to the vulva, or opening into the vagina, is frequently increased by the smallness of the penis, which in some instances is bifurcated, and sometimes there is merely a groove where the urethra ought to be; at other times it is imperforated, so that the urethra opens elsewhere than at the extremity of the gland, or of the body which represents it; and in some cases there is even a communication between the rectum and the penis, or the scrotum.

2d. The apparent hermaphroditism of the female admits of two varieties;—the first consists of the excessive growth and dimensions of the clitoris, but which, by the way, is in no case perforated by the urethra. The other consists in a malformation of the uterus and vagina, which conformation gives the uterus some resemblance to the penis; but in such a case their is a prolapsus of the uterus, and this prolapsus causes the uterus to project beyond the external parts of generation, and it being thus always exposed to the action of the air increases the illusion, by losing its own natural color and appearance, and acquiring that of the integuments of the penis. This apparent hermaphroditism is generally brought on by disease, and is remedied when the prolapsus is reduced.

3d. Apparent hermaphroditism, from the fusion or reunion of the generative organs of either sex, is that which approaches the nearest to real hermaphroditism. This is the most rare, and although it is sufficiently well-established by numerous facts, yet in no case has it furnished an example where the development of the attributes of the two sexes has been sufficiently perfect to endow the same individual with the faculty of impregnation and of being impregnated, as is the case with snails and some other animals.

4th. Under the genus hermaphroditism, or doubtful sex, is to be classed that species of malformation where there is an entire absence of those organs essential towards generation. Individuals with this defective organization would appear originally to have been intended to belong to the male sex, where the organs of generation have never been developed, but have remained either in their embryotic state, or have been arrested in their evolution. Thus, instead of a penis there is merely an imperforated fleshy excrescence, the rudiment of a penis; the testicles are either altogether wanting, or reduced by atrophy to the smallest volume; the external appearance of these individuals is

neither that of a man, nor yet that of a woman; often there is an intermingling or fusion of the general character of both sexes, whilst in others there is a slight predominance of one sex over the other; but this is rather indicated by the propensities than by the physical characters of the individual.

I shall not, gentlemen, occupy your time by entering fully into the subject before us, and detailing to you all the cases of hermaphroditism which have been collected by various authors who have written on the subject, or which are of more recent occurrence, but merely illustrate what I have laid down, by the selection of a few of the best marked cases. I shall, therefore, for your more easy remembrance, take them in the order of the subdivision I have submitted to you.

Albert mentions the case of a youth, where two tumors appeared in the private parts; on cutting through the skin the testicles and penis were exposed to view, so that he became capable of coitus, married, and had a family. The ancients termed those individuals "gynandic," who from apparent women became perfect men. Pliny makes mention of many of these singular metamorphoses. Lucinus Muliamus saw at Argos a person named Arescon, who had previously been married as a woman under the name of Arescusa, but that, in the course of time, the beard and the member of virility appeared, when she ceased to be a woman and became a man. He also reports that at Smyrna he saw a girl turned into a boy. And I, adds Pliny, saw myself in Africa one Lucius Cositius, a citizen of Visdrita, who from being a woman was turned into a man on her wedding night. St. Augustine makes mention of a virgin who was changed into a young man and taken to Rome in the time of Constantine. Antoine du Pinet cites several cases of young women who became men; amongst others two girls, aged fifteen, and also another case of a bride, who, to the astonishment of her husband, became a man on her bridal day. Pitscottie, in his History of Scotland, relates a similar case:—"In the year 1459 there was a bairn which had the kinds of male and female, in whom man's nature did prevail; but, because his disposition and portraiture of body represented a woman, in a man's house of Linlithgow he associated in bedding with the good man's daughter of the house, and made her to conceive a child, which being divulgate through the country, and the matrons understanding this damsel deceived on in this manner, and being offended that the monstrous beast should set himself forth as a woman, being a very man, they got him accused and convicted in judgment for to be burnt quick for this shameful behaviour."

The celebrated Ambroise Pare cites the following cases:—Amatus Lusitanus reports that in the village of Esquina there was a maid named Maria Pateca, who, at the period of puberty, when the menses were expected to flow, had suddenly a penis and the male organs of generation developed, which before that time lay concealed and covered, so that of a woman she became a man. He afterwards married, but remained beardless.

Anthony Loquerreux relates a similar case of a man who was taken for a woman until the fourteenth year of his age, when one night as he played wantonly with a maid who laid in the same bed with him, his members, hitherto lying hid, started forth and unfolded themselves.

Pare saw at Vitry-le-Francois the famous Germain Marie, or Germain Garnier, who from a young woman became a young man. When she was fifteen years old, being one day obliged to jump across a ditch, she suddenly found herself furnished with the parts of generation of a man; weeping bitterly she returned home, complaining to her mother that her entrails had burst forth. Cardinal Lenoncourt, after the necessary examination, called this new made man "Germain," and ordered him to assume the habits of his sex. Montague, in passing through Vitry many years afterwards, saw this man, then much advanced in years, and says he heard a song very common [illegible]st the young girls of

the neighborhood, in which they warned each other to take care what strides they made and how they stretched their legs apart, lest from being girls they should become boys like Marie Germain.

Fodere relates the case of a sailor, where the male organs of generation were apparently imperfect; the scrotum was separated in the direction of the raphe for about two inches; this slit was funnel-shaped, the end of the finger could be easily introduced, and was constantly moistened by a secretion of mucus. The young man was about five feet high, the skin soft and white, he had but little beard, his breasts were developed like those of a young girl of sixteen, firm and round; his hips were wide, his thighs thick and his knees inclining inwards. He was discharged the service.

Orfila mentions a child, in the year 1792, who was baptized as a girl by the name of Marie Marguerite. When arrived at puberty two tumors appeared at the inguinal ring; these were repressed by a double truss, which caused such acute pain that it could not be continued in use; the two ovoid bodies which caused these tumors descended into the scrotum. When nineteen, Marie was about to be married, but her parents wished her to be previously examined by a skillful physician, since the surgeon who attended her for the tumors had spread a report that she was injured in such a way as to render her incapable of contracting marriage. The medical man, Doctor Worbe, who was engaged to examine the parts, decided that she belonged to the *male sex*. This decision was confirmed in 1813, after being examined by three other physicians, and Marie was declared to belong to the male sex, and ordered to lay aside her female dress.

Doctor Worbe gives the following account of this individual at the age of twenty-three. —"His hair and eyebrows were of a light brown; a downy beard appeared on the upper lip and chin; the tone of voice was dull and sonorous; about five feet high; the skin very fair, and the constitution robust; the limbs were round, but full of muscle; the pelvis resembling that of a man, the knees were not inclined inwards; the hands and feet were large and strong. Thus far Marie had the appearance of a man; but the breasts resembled those of a young woman, except that they were pyriform and did not appear to be glandular, and the papillæ were compressed. The pubis was covered with hair of a lighter color than on the head. On separating the thighs there was discovered a longitudinal slit; the folds of the skin which formed it were closely drawn together. None of the male organs of generation appeared on the outside of this slit or *sulcus*. On carefully examining the parts with the hand, one might distinguish two bodies, each suspended to a cord issuing from the sub pubic ring of the abdomen; that on the right was larger and descended lower than the one on the left. There could be no doubt but these bodies were real testicles, each suspended by its spermatic cord. On separating the lips of this species of vulva, we observed an impervious gland; it was small, and in appearance resembled the extremity of a middling sized finger. Beneath this fleshy excrescence there was a grooved canal which terminated about an inch and a half from the margin of the anus. This opening, which was grooved like a pen or a toothpick from behind forwards, was the *external orifice of the urethra*. From hence it appears that in this subject the scrotum was separated into two compartments, each of which contained a testicle; that these uncontestable proofs of virility were the tumors which the surgeon mistook for inguinal hernia, and that the penis was imperfect; in short, it was a case of very complicated *hypospadias*.

Hypospadias, from the Greek ὑποσπαδίας, from ὑποσπάω, subtraho, ὑπὸ, sub, and σπάω, traho, is that malformation where the urethra, instead of terminating at the extremity of the glans penis, opens lower down, as at the insertion of the penis or in the perinæum. In such a case the penis is always drawn down and bent on its inferior surface, from whence the name.

There are other cases without hypospadias, where the scrotum appears slit, and more

or less resembles the opening of the vagina. This slit proceeds from a very considerable depression of the raphe, which to a superficial observer may lead to the mistake; but on examination we may speedily satisfy ourselves that it is merely a cul de sac, situated between the rectum and the bladder.

Sometimes the opening of the urethra on the glans penis is so formed or configurated, as to resemble in miniature the external organs of generation of a woman.

Such, gentlemen, are the malformations of the male organs of generation; those of the female, which we will now proceed to investigate, arise either from the excessive growth of the clitoris, or from a prolapsus uteri.

Beclard gives the following account of Madame Marie Madeleine Lefort. This young lady was sixteen years old, and in appearance belonged to the male sex, as far as related to the proportion of her body, her limbs, her shoulders, and her pelvis, both in form and in dimensions; in the size of the larynx, the intonation of the voice; also in the growth of hair on the surface of the body, and in the form of the urethra, which was continued considerably beyond the symphysis pubis. Yet, upon attentively examining the organs of generation, it was clear she belonged to the female sex. The mons Veneris was prominent, round, and well covered with hair. Beneath the symphysis pubis was a *clitoris*, which in form perfectly resembled a *penis* in a state of flaccidity. It was about two or three inches long, but the length was increased when in a state of erection. It was furnished with an impervious gland, groved underneath by a channel, in the lower part of which there were five small holes placed regularly along the median line. Lower down and behind the clitoris the opening of the vagina presented itself; the labia were narrow, short, thin, and covered with hair; they did not contain any testicles, and extended to within nearly an inch of the margin of the anus. Between the labia there was a very superficial fissure; on pressing this there was an indistinct sensation of a cavity in the front of the anus. At the root of the clitoris there was a foramen or round opening; a sound introduced into this opening did not lead into the bladder, but was easily directed towards the anus, parallel to the perinæum, and one might then raise up or stretch the bottom of the vulva, and could ascertain that the membrane which united the labia was about twice the thickness of the skin, and equally as dense. Directing the sound upwards and backwards the uterus was discovered. This young lady has menstruated from the age of eight; she experienced an inclination for the male sex, and would willingly submit to a slight operation to open the vagina, which might be easily accomplished. The urethra being prolonged under the clitoris, a malformation extremely rare increased its resemblance to the penis.

Sir Everard Home relates an instance of a negress, aged twenty-four years. Her breasts were flat, voice rough, and countenance masculine; the clitoris was two inches long, and in thickness resembled a thumb; it was of a red color, and more pointed than a penis: not flat below, and having neither prepuce nor perforation. When handled it became half erected, and was then three inches long, and much thicker than before. On voiding her urine she was obliged to lift it up, as it completely covered the orifice of the urethra. The other parts of the female organs were found to be in a natural state. It is to be remembered that in warm climates the clitoris frequently acquires an undue size, especially amongst negresses, so that in Africa it is usual in young girls previous to puberty to have this part removed; and those who perform this operation travel about from town to town, announcing their arrival like pig-gelders in England. It ought not to be forgotten that the clitoris in new-born children is frequently very large, and might sometimes lead to a mistake in the sex.

CLINICAL REMARKS.

By Anthony, White, Esq., President of the Royal College of Surgeons.

Burns and their Cicatrices.

Persons, after burns affecting movable parts, are sometimes rendered most deplorable objects, in consequence of the cicatrix uniting those parts together. I remember a young gentleman at the Westminster school, who, one 5th of November, had his pockets full of fireworks, squibs, crackers, Roman candles, blue lights, Catherine wheels, and indeed all sorts. By some accident these ignited, and he soon became himself one immense firework; in this condition he ran about Dean's Yard, until by some means the flames were extinguished. The skin of the shoulders, chest, abdomen, prepuce, scrotum, and the thighs was completely burnt, and he was a year and a half recovering. As he got better the skin of the abdomen contracted adhesions with the thighs, and he would have been bent double, had it not been prevented by strapping him up upright. The adhesions became elongated on either side, and still exist; he is now a young man, and in consequence of the prolongation of cutis from the abdomen to the thigh on either side, the genital organs have all the appearance of being set in the recess of a Gothic window. The rete mucosum of the pubis being destroyed, no hair has grown on that part.

Congenital Malformation of the Sterno-Cleido-Mastoideus.

I saw to-day a young lady, on whom I divided the sterno-cleido-mastoideus when she was a little girl. One of these muscles was naturally considerably shorter than the other, so that her head was constantly carried on one side. I therefore divided the shorter muscle, and it appeared to fly up behind the ear, where it was lost. The first effect was rather curious; the head acquired a nodding motion, but she soon became capable of moving it properly. Of late, however, it has assumed rather an extraordinary character: the muscle which had been divided and disappeared seems to have come down and united with the other portion, so that the old complaint has returned.

Passing the Catheter.

In many cases in which I have experienced difficulty in passing an instrument into the bladder, I have succeeded in overcoming the obstacle by carrying the handle of the catheter or bougie to the left side, and then passing the instrument steadily onwards.

Mr. White exemplified this observation by passing a catheter in a case of stricture of many years' standing, in which various attempts had been made by other parties unavailingly.

Hæmorrhage from Varicose Veins.

The best way to arrest hæmorrhage from the bursting of varicose veins, is to apply direct pressure upon the part; the horizontal position alone is not sufficient. There was a woman in the Vauxhall-road who died from the sudden rupture of a dilated vein, the bystanders not knowing how to prevent the bleeding.

If blood be drawn from a varicose vein in the leg, as is sometimes recommended, it will be found that it will flow as readily as from an artery, and to arrest it, it is necessary to apply pressure *above* the opening as well as directly upon it, because the valves of the vein being imperfect in their action, regurgitation of the circulating fluid will take place.

A CASE OF LOSS OF NOSE, AND RESTORATION BY THE TALIACOTIAN OPERATION, WITH REMARKS.

By Frederick Tyrrell, Esq., Surgeon to St. Thomas's Hospital, &c.

In relating the following case I shall omit all minute detail, and confine myself to such points as I consider worthy of notice, and requisite to elucidate the observations I have subsequently to offer.

J. H. aged twenty-seven, of small stature, light complexion, dark hair and eyes, and of scrofulous diathesis; by trade a working goldsmith; had suffered from cynanche tonsillaris two or three times, and also from common lepra twice. His habits had been irregular, but he had not been addicted to intemperance.

In 1831 he had gonorrhœa and chancres, for which he took mercury, but not so as to affect his mouth, and he apparently got well. A few weeks afterwards he was attacked with inflammation and ulceration of the soft palate, which destroyed part of the palate and uvula; this disease was arrested and relieved by mercurial fumigations and a gargle of the chloride of soda.

After this he remained tolerably well for about a year; but in the spring of 1832, he felt uneasiness at the upper part of his nose, which became swollen and tender. This was soon followed by an offensive discharge from the nostrils, which was frequently tinged with blood; and some pieces of bone separated and passed by the pharynx through the mouth. Under professional advice he took mercury in large and small doses, sarsaparilla, and mineral acids, and applied injections of the solution of the chloride of soda; but in spite of the means employed the disease progressed, and in October (six months after the disease commenced in the nose), he applied at St. Thomas's Hospital, and was admitted under my care. At the time of his admission the extremity of the nose, the fibro-cartilaginous septum, the whole of the left ala, and part of the right, were gone, and the larger part of the turbinated bones had exfoliated; the ulceration was still proceeding, and the edges of the ulcer were ragged, the surface sloughy, and affording a copious thin secretion mixed with blood, highly offensive and irritating; the surrounding skin was red and swollen, and the whole part excessively tender and painful. He was pallid and emaciated; his pulse was quick and feeble; his appetite bad; his bowels irregular, usually constipated; he enjoyed but little sleep, and frequently woke in profuse perspiration.

I prescribed for him Hydrarg. c. creta, g. ij.; Opii, g. i. om. nocte. Decoct. Sarsap. c. c. Quinin. Sulphat. ter die, and a mild aperient when required. His diet was to be nutritious. As a local application I ordered the following lotion, to be used on lint, and covered by a light and warm linseed poultice: ℞. Aquæ distillatæ, lb j.; opii, ʒ j.; cola post solutionem; tum adde liquori colato mucilaginis acaciæ, ʒj. ut. ft. lotio.

For a few days there was no visible improvement, and he obtained very little sleep. I therefore prescribed liquoris opii sedat. min. xxx. to be taken at night, instead of the grain of opium. An improvement then took place in his general health; he rested better, ate with some appetite, and requested to be allowed some port wine, of which I ordered two glasses a day for him. But, although his general health mended, the ulceration did not stop, and the diseased part continued tender, painful, and unhealthy in aspect. About the middle of November his health again retrograded, when I changed his medicines, giving him ferri subcarbon. ʒss. ter die, and solut. acetatis morph. m. x. nocte.

His general health again rallied, but the ulcer remained much in the same state; and in the begining of December I tried as a local application, an ointment of the hydriodate of potash; but it created so much irritation that it was discontinued, and a lotion of black wash, opium, and mucilage substituted. During the whole of the period that he had been under my care, every attention had been paid to the state of his secretions; and

his food, always of nutritious quality, was changed repeatedly to suit his palate and excite appetite.

The local disease nevertheless extended; the right ala had been destroyed; the ossa nasi had been exposed and had exfoliated; the vomer and remains of the turbinated bones had also separated. In consequence of some observations in the periodicals on the efficacy of iodine in secondary syphilis, I was induced to try it in this case; and on the 31st of December, prescribed solut. potassæ hydriodatis (Lugol's) ter die, and the dose was gradually increased during the month of January to min. xvj. ter die. He continued the use of the acetate of morphia, of which the dose had been increased by degrees to min. xxx.; and he occasionally took besides a pill of conium and ipecacuanha to relieve a cough. The exhibition of the iodine was followed with immediate beneficial change; his appetite in a few days was excellent; he slept well, and was enabled to leave off his opiate; his cough subsided, and the local disease seemed as if affected by some charm, so rapid was the change in it. The tenderness and pain were no longer felt; the surrounding redness and swelling disappeared; the surface and edges of the sore became even, florid, and healthy, and gave out a good purulent secretion.

From this time he went on well in every respect; his general health improving, and the ulcer granulating and cicatrizing; so that on the 10th of July he was made an out-patient. Once only was he obliged to leave off the iodine for a few days, in consequence of his stomach being disordered, and he then took the sarsaparilla again, but resumed the use of the liq. potassæ hydriodat. as soon as the irritability of the stomach had subsided.

While attending as an out-patient, the sarsaparilla was substituted for the iodine for the same reason; but his general health declined, and the sore became unhealthy, and began to spread again. I therefore re-admitted him into the hospital on the 1st of August; and considering the use of the iodine inadmissible from the state of the stomach, I directed the sarsaparilla to be continued, with small doses of hydrag. c. creta and opium, with his former diet. He was attacked with diarrhœa, which had been and was prevalent in the hospital, on the 23d of September, which compelled me to omit the sarsaparilla, &c., for about three weeks. On the 15th of October he resumed the use of the sarsaparilla, and was so much recovered on the 19th that I prescribed two table-spoonsfull of the following mixture, to be taken three times a day, in stead of the sarsaparilla: ℞. Iodines, grss.; potass. hydriod. ʒss.; syrupi papaveris, ℥ss.; aquæ distill. lbss. Rapid improvement again took place in his general health and in the ulcer; and, without any change worthy of notice, the ulcer had perfectly healed, and his general health was restored in the begining of January, 1833.

Some months afterwards he called upon me to solicit me to try some means of relieving the horrid deformity created by the loss of the parts I have mentioned. I then resolved upon performing the Taliacotian operation for him, there being an ample forehead to furnish integument for the new nose; but before I undertook the operation, I was desirous that the new formed structures should be well organized, and contracted as much as they would admit. Considering these objects to be effected in the spring of 1834, and his general health being good, I admitted him into St. Thomas's again.

Reflecting on the operation which I was about to undertake, I thought I might, by artificial means, give support and figure to the new nose, which I feared (from the loss of the ossa nasi, and the extensive ravages of the ulceration) would be otherwise to form and maintain.

The fact of styles or tubes of silver or gold being worn in the nasal duct for years without inconvenience or mischief, principally induced me to make the trial of a metallic support in the present case. I therefore took a cast in plaster of Paris of the patient's face, and had a light but firm frame of platina formed, the base of which was to rest on the

frontal bone above and the superior maxillary bone below; from this there projected a small stem, corresponding to the septum of the nose, continuous with and supporting inferiorly the main part, which passed in the direction of the median line from that end of the base which was to rest on the frontal bone, and joined the portion I have mentioned corresponding to the septum at an acute angle; from near the junction of these two parts, but attached entirely to the dorsal portion, two small alæ projected laterally, which were to support the alæ of the new organ.

The support was made of platina, as not liable to be acted upon by the secretions or air; and in forming it I bore in mind the possibility of its producing irritation or mischief, which might render it necessary to remove it; it was not therefore so firm as it might have been made, had I been certain of its remaining without injury, for I had contrived it so that it could be easily removed at any time without disturbance to any part.

Having fitted the platina frame to the plaster cast I had of the face, I carefully modelled over it some plastic wax, as near as I could judge of the thickness of the integument of the patient's forehead, so as to form an artificial nose; this being afterwards spread out flat and laid upon the forehead gave me accurately the portion of integument I should want to cover the platina frame and form the new nose; but it was necessary further to make allowance for the twisting or turning of the flap, and the contraction which would occur after its union.

Being fully prepared, and the patient being in good health, I performed the operation on the 16th of May, 1834. The extent of integument which was to be raised from the forehead was distinctly marked out by a line in indigo; the stem by which the flap was to retain its connexion was at the inner extremity of the right eyebrow, and the flap itself had an oblique direction over the left eyebrow and left side of the forehead; it terminated in the tongue-like piece which was to form the septum of the nose.

The patient was placed in a recumbent posture, and I had first made an incision completely through the integument on the right side of the nasal opening, which extended from the nasal part of the frontal bone downwards and outwards to the site of the termination of the original ala; a second incision parallel to this, but about one-tenth of an inch distant, and penetrating to the same depth, included a narrow strip of integument, which I dissected out, leaving a narrow deep groove. I then in the same way made a similar groove on the left side.

Next I removed a small square piece of the integument and soft structures on the median line, at the upper part of the commissure of the lip, so as to expose the periosteum over the junction of the superior maxillary bones to a sufficient extent to receive the corresponding part of the base of the platina support and the extremity of the new frænum. I also made a similar space over the lower part of the frontal bone on the median line, to lodge the upper part of the base of the platina frame.

Thus I had prepared for the reception of the artificial support and the skin which was to form the new nose, and I proceeded to detach the flap from the forehead.

I traced the outline made with indigo with the scalpel, carrying the point of the instrument to the pericranium; and then I dissected up the flap, leaving little or nothing but pericranium. The connexion left towards the right eyebrow was about a quarter of an inch in width.

The hæmorrhage was checked by pressure with German tinder, and the flap was held between sponges dipped in warm water.

As soon as all bleeding of consequence had ceased I put the platina frame in its place and brought the flap of integument over it. To secure the flap I used small curved needles and thin silk ligatures, and passed the first sutures through the extreme lateral

parts of the flap and the lower ends of each lateral groove; and by tying the ligatures I readily adapted and fixed the extremity of each ala in its proper situation. I then passed other sutures on each side, about a third of an inch apart, so as to secure the edge of the flap in the groove made for its reception; and lastly, I fixed in like manner the strip of skin which formed the septum.

A small vessel near the tongue-like portion of the flap which formed the septum continued to jet out blood, even a short time after the sutures had all been tied; showing that a large part of the flap was well organized. Every part fitted perfectly, and I had good reason to be satisfied with the immediate result.

The patient bore the operation without a murmur or complaint, and was conveyed to his ward and bed in high spirits; the wound on the forehead was covered with German tinder, and the nose had a thin layer of soft cotton placed on it; but the larger part of this covering was soon removed, for the influence of the air from the lungs kept the part perfectly warm.

Union took place very rapidly, and in four or five days every suture had been removed; the adaptation had been so perfect that it required close inspection to distinguish the line of junction for a considerable extent. The stem of the flap, which had been twisted in turning down the flap, had become perfectly smooth. The part retained its sensibility, but, if touched, the sensation to the patient was as if the forehead were touched; and this occurred for many weeks after the operation.

For the first two or three weeks every thing went on most prosperously; the nose retained an excellent figure, and the platina frame appeared fixed and did not produce the slightest inconvenience; but I soon observed changes going on which I dreaded would disturb the harmony of the work. The integument forming the new nose began to contract, and I regretted to see this take place very unequally, that on the left side being much more rapid and extensive than on the right; this I had in a degree anticipated, and thought I had amply provided for it, by making the side of the flap which formed the left nostril more extensive altogether than the other. I had not, however, calculated upon the greater contraction of the thin integument, of which the left side of the nose was formed; for it came from the superior part of the forehead, where the skin was thinner and the subcutaneous cellular tissue much less abundant.

The irregular contraction after a little time displaced the platina frame, and the part which should have supported the point of the nose by degrees projected out of the left nostril; still it did not irritate, or occasion any uneasiness.

After waiting some weeks to ascertain whether I could remedy the defect without removing the platina frame, and, deeming it impossible, I reluctantly had it taken out; this was done by the patient himself, easily and without suffering.

The contraction increased a deformity of the upper lip which previously existed on the left side, by drawing up and everting that part of the lip. The previous defect had been occasioned by the exfoliation of a portion of the superior maxillary bone, and I am of opinion that the want of support and attachment resulting from this had favored the contraction of the left ala.

On the 3d of October last I remedied the defect in the upper lip by an operation similar to that for hare-lip, and at the same time closed a part of the left nostril and enlarged the right, by which means the nose was made nearly symmetrical.

At this time the organ appears fixed and not likely to undergo any further change; it is as good as any that I have seen formed by similar means.

The advantages resulting from the operation have been manifold, and greater than I expected; for not only has the patient got rid of a shocking deformity, but he is now free from a dryness of the nasal cavities and of the pharynx which had continually

distressed him; and his voice, which was before extremely indistinct and unpleasant, is now clear and perfectly audible.

Observations.—The history of the case, as far as regards the influence of the syphilitic virus on a patient of weak power and scrofulous diathesis, is by no means uncommon; for although such cases are not so frequent as they were some twenty or thirty years ago, yet our large metropolitan hospitals usually afford examples somewhat analogous. There is scarcely any surgical class of disease in which a greater revolution has taken place in the treatment (within the period I have mentioned) than in syphilitic affections. Mercury, which was formerly considered as a specific in most of these cases, is now confided in by few, is looked upon as a useful auxiliary in the treatment by the many, and is rejected altogether by others. My own experience induces me to consider it as a salutary and useful remedy in very many cases, but certainly not a specific; and I believe many will agree with me when I say that there are cases, as the present one, in which mercury aggravates rather than alleviates the disease. Some such cases as I allude to are relieved by sarsaparilla and very small doses of mercury; some by sarsaparilla alone; and I have known some do well under means of great variety, but tending to one principal object, viz., the restoration and support of general power.

But in most of these cases the recovery has been very tardy, and often protracted by frequent relapses; and some progressed in spite of all our care, and destroyed life either by exhaustion from continual suffering or by the extension of the disease to vital organs.

Few will, I think, deny that a more powerful remedy was wanting to enable us to combat the most formidable cases of secondary syphilitic disease with any thing like certainty of success.

The influence of the preparations of iodine, as far as present experience goes, will almost warrant us in coming to the conclusion that the much desired remedy has been found. The case I have related was one of the first in which I tried this remedy, and I have but feebly detailed its effects. I have never seen such rapid influence produced upon general and local disease by any other remedy.

I have for the last two years employed it in all the varied forms of secondary syphilitic and of scrofulo-syphilitic diseases; in the affections of the throat, of the skin, of the fibrous tissues, &c. I have also given it in many cases of primary disease, and with excellent effect, when the local action has been unusually disordered.

Further experience is of course necessary to enable us to form very accurate opinions respecting the use of such a remedy; but I shall briefly state my opinions of it, resulting from the experience I have had. I have found its effects most rapid in secondary syphilis modified by scrofula, when the general power has been depressed and a morbid irritability has existed.

In all cases where it acts beneficially it produces rapid effects on the general health; it increases appetite, augments the force of the circulation; it lessens nervous irritability and subdues local pains.

Almost as soon as its influence is apparent in the system, the local affections undergo salutary changes, without the aid of other than the most simple applications.

There are circumstances, however, under which its exhibition must be delayed or laid aside; as when the stomach is very irritable; when there is a tendency to, or an actual state of diarrhœa; again, when the secretions from the alimentary canal are ill-conditioned, or when there is constipation.

The form I prefer is that which I have described as the mistura potassæ hydriodatis. Sometimes I omit the poppy syrup, and sometimes I omit the iodine, giving the hydriodate of potash simply. These alterations are determined by circumstances afforded by respective cases; thus, if there be no nervous irritability, if there be headache, or tendency

to confined bowels, I omit the poppy; if the stomach is naturally irritable I omit the iodine, &c.

I have hitherto found the small dose I have mentioned quite sufficient; and in some cases have been obliged to diminish it, as it created nausea.

The mistura potassæ hydriodatis does not disorder the stomach so soon or so frequently as Lugol's solution, or other somewhat similar formulæ that I have tried.

In many cases I have found much benefit from giving at the same time small doses of mercury, as a grain or two of the hydrarg. cum creta or blue pill, or every second night to promote a proper degree of biliary secretion.

Like all other remedies it must be given at proper times, and under circumstances favorable to its use. I am satisfied of its being a very valuable remedy, and hope that an indiscriminate and improper use of it will not bring discredit upon it. When I have had more experience I may have opportunity to offer some farther observations on the use of this remedy in a more connected and extended form than I am at present able to do.

I shall in conclusion offer a few remarks on the operation and its effects.

With the exception of the introduction of an artificial support, I believe there was nothing novel in the plan I pursued; but it may nevertheless be useful to detail the principal difficulties.

In calculating the extent of the flap of integument to be raised from the forehead, full allowance must be made for the turning and for the after-contraction. If the flap is to remain connected to the right side, in turning it down the sides become reversed; that which had been to the right being placed afterwards to the left, and the left to the right. Supposing them to be of equal length, after being turned down that on the right side would be relaxed and that on the left be stretched out; to obviate this, the left side of the flap should be made considerably longer than the right; if the integument which is to form the flap varies much in thickness, a further allowance should be made, as the thinnest portion will afterwards contract most.

In another case, if I made the septum with the flap, I should secure it first, as I experienced some difficulty in doing so after I had fixed the flap itself. If, however, the forehead was not sufficiently large to afford integument for the septum without encroaching on the hair, I should form the septum subsequently from the upper lip, as recommended by Dieffenbach.

Short curved stiff needles enabled me to pass the sutures with great ease; and I much prefer the small silk or thread ligatures to the metallic thread or metallic pins. I have used the last two in other operations, but cannot detect any advantages in their use.

The experiment of the platina frame as a support failed only, I consider, from peculiarities in the case, and from my having given it a figure which made its displacement easy. I am perfectly satisfied that such a support might be used with good effect and without its producing any mischief; the want of such aid renders the new formed organ usually irregular and misshapen; this has been the case in every instance which I have seen.

Before the parts are adapted and fixed by sutures, the surgeon should wait until all hæmorrhage which may be likely to interfere with the surfaces has ceased; otherwise coagula may be deposited, which would prevent adhesion.

In the after-treatment the patient should be kept recumbent and at perfect rest, and should desired to suppress an inclination to cough or sneeze. There is no fear of the part suffering from want of warmth; the warm air from the lungs keeps up sufficient heat. I think it not improbable that the part might be so heated and distended as to require the in-

fluence of cold and the erect posture to check mischief. I should, however, not consider it prudent to apply cold without evidence of its necessity.

As soon as the union is firm the sutures should be removed to prevent their irritating and exciting ulceration.

The loss of the nose not only produces conspicuous deformity, but subjects the patient to consequences which materially affect his comfort and health. The constant dryness of the nasal cavities and of the pharynx, with frequent soreness of the latter, disturb the rest and affect the appetite; and the effect on his articulation is such as to render it extremely indistinct and unpleasant. He is by his misfortunes almost an outcast from society.

Are we not then warranted in urging the performance of an operation by which most of these evils can be remedied—which is not attended with risk, and which, if carefully conducted, can hardly fail? Such is my impression from the result of the present case and others which I watched.—*Medical Quarterly Review.*

WESTMINSTER HOSPITAL.

Enlargement of the Lingual Papillæ.

Some of the cases which have lately presented themselves among the out-patients have been of some little interest. A man, a coachman by trade, came to the hospital twelve days ago, under the impression that in cutting his nails a portion of one of them had got into his mouth, and fixed itself into the tongue. The part he pointed out was far back, near the right anterior palatine arch;—a rigid examination, both visual and digital, was instituted, and with the effect of satisfying the examiners that there was not any part of a nail there; the only thing which could give rise to such an idea being the enlargement of two or three papillæ, which had assumed a cartilaginous hardness. The coachman, however, was not satisfied; some *placebo* was given, and he was told to call again. On his second visit, finding him still unconvinced, a portion of a nail of one of the pupils was secretly introduced into the mouth, and then triumphantly withdrawn and shown to the man. For a moment or two he seemed to believe in the stratagem which had been played upon him; still however the old feeling seemed to recur to him. He paid the hospital a third visit, when the enlarged papillæ were removed with the scissors; this was apparently sufficient, and he did not show himself again.

Congenital Phymosis.

On Wednesday, the 24th of December, a little boy about five years of age was brought to the hospital by his mother, because he appeared to suffer great pain and difficulty in making water. On examination, phymosis with occlusion of the orifice of the prepuce was found to exist. A ligature was put loosely round the prepuce so as to keep back the glans, and the free portion excised with a pair of scissors; the inner membrane of the foreskin was not divided by this cut, and it therefore required to be repeated. When this had been done an attempt was made to draw back the remaining portion of the prepuce; but it was adherent all around to the glans penis, and it was necessary to separate it.

The little patient was brought again a day or two afterwards, and he then could make water easily.

THE HYDRATE OF THE TRITOXIDE OF IRON IN CASES OF POISONING BY ARSENIC ACID, &c

The two following facts, which we derive from the French *Lancet* of Dec. 20 (communicated to the Society of Practical Medicine by M. Leger), seem to confirm the late allegations relative to the efficacy of the antidote to arsenic discovered by a German

physician. They are given with very few details; but, short as they are, they deserve notice :—

Fact 1.—A young child, eighteen months' old, having drunk a solution of the gray oxide of cobalt (commonly called "fly poison") was immediately seized with violent colic. Her mother, alarmed by the sufferings of the infant, called in an apothecary, who administered on the instant the hydrate of the tritoxide of iron, a pinch in some sugar and water every quarter of an hour. When the medicine was administered the first time the little patient was lying stiff on the lap of her grandmother, complaining of violent pain in the belly. She had vomited twice. After the administration of the first dose she was less agitated; the remedy was repeated; and after the fifth dose the patient was much relieved; she fell asleep, and did not awake until the next morning. The pain had now completely disappeared; the infant was gay, and since the period spoken of has enjoyed perfect health.

Fact 2.—Dr. Bunson, of Gottengen, has already made some experiments on dogs, which seem to prove that arsenious acid may be neutralized by the tritoxide; and he asserts that he has found in the excrement of animals submitted to the poison and its antidote an insoluble arseniate of iron.

In addition to these recent facts we may mention others communicated to the *Royal Academy of Medicine* during the months of November and December, and published in the *Gazette des Hopitaux* :—

On the 4th of November M. Orfila communicated some experiments made on this subject by M. Lesueur at the Faculty of Medicine. The experiments were performed on dogs, and in order to prevent the rejection of the poison by vomiting, the œsophagus was tied immediately after the administration of the arsenic and iron.

Experiment 1.—Nine grains of arsenic acid were given to a good-sized strong dog, and immediately after three ounces two scruples of the hydro-tritoxide of iron. The œsophagus was then tied. The animal experienced no symptoms whatever of poisoning, and was alive when M. Orfila spoke, seventy hours after the administration of the poison. It is right to remark that nine grains of white arsenic, or arsenic acid, generally destroy a dog in about five or six hours. The above-mentioned experiment was repeated on several dogs, and always gave similar results.

Experiment 2.—Nine grains of arsenic acid were given to another dog; and in half an hour after three ounces two scruples of the antidote. This animal soon died, with all the symptoms of poisoning.

M. Orfila observed that the first experiment proved beyond doubt the efficacy of the tritoxide as an antidote to arsenic acid. The action of this poison has hitherto been combated with little success, because, as it is insoluble in water, its particles become concealed, and as it were incrusted in the mucous cysts of the stomach; hence but little advantage is obtained from the use of hydro-sulphuric acid, although it decomposes perfectly the arsenic acid. People who poison themselves with arsenic generally take it in a solid state, and it is curious to observe how in the present case one solid decomposes another.

The second experiment, in which the animal died, by no means contradicts the first; for it is now well determined that arsenic poisons not by the inflammation of the stomach which it causes, but by its action on the brain and heart after absorption; and the latter takes place so rapidly that after half an hour the administration of the antidote is too late.

On the 9th of December M. Orfila communicated to the Academy the experiments which he had made in conjunction with M. Miguel and Nonat on the same subject, and which furnished the following results:—

Twenty-four grains of arsenic were given to a dog; twenty minutes afterwards four scruples of the tritoxide of iron were administered in water; the animal, who had vomited before the administration of the counter poison, remained lull, but in two days was quite well.

On the same day a small dog was given ten grains of arsenic, and immediately after the tritoxide; in the afternoon the animal was perfectly healthy.

The same experiment was repeated with exactly similar results on three other dogs. In all these cases the antidote was given in a dose twelve times greater than the poison.

The œsophagus of a spaniel was now tied without any poison having been given; the dog died in seventy-eight hours.

Twelve grains of arsenic were given to another spaniel; the œsophagus was tied, and he died in two hours.

Nine grains were administered to a dog; the œsophagus was tied; death occurred in two and a-half hours.

Twelve grains of arsenic were given to a small dog; the tritoxide immediately after and the œsophagus was then tied. In two or three hours the external symptoms of poisoning had disappeared; in twenty-four hours the ligature was removed from the œsophagus, and the animal died on the sixth day.

The same experiment was repeated on two bitches; one died in seventy-two hours, the other in eighty-three. In order to ascertain in what period after the administration of the poison the antidote might be given with some hope of success, the following experiments were made.

Twelve grains of arsenic were given to a middle-sized dog; the iron two hours and a half after; the animal died in a quarter of an hour.

Eighteen grains were given to a large dog; the animal made several efforts at vomiting; at the expiration of an hour the ligature of the œsophagus was loosened and the antidote administered; the dog lived ninety hours.

Eight grains of arsenic acid were given to a dog; the iron in an hour after; death in twenty-four hours.

Twelve grains of arsenic acid mixed up with some fat were administered to a spaniel bitch, together with the antidote; the animal died in thirty-eight hours. Some fragments of the poison were found in the animal's stomach.

OPIUM IN FALSE LABOR PAINS.

The prejudice of the French physicians against the use of calomel and opium is one, perhaps, of the most striking features in their practice. Hence we find M. Foulhioux recommending with timidity the use of Sydenham's opium in cases of false pain, and professing his ignorance that the remedy has been sanctioned by other practitioners. The cases reported by him confirm fully the efficacy of opium in appeasing the false pains which sometimes derange the natural order of labor; but the practice is too familiar to our English readers to require any detailed notice on our part. M. Foulhioux is very cautious in the dose of opium which he gives, and which consists of a teaspoonful of a five-ounce draught, containing twenty-four or thirty drops of laudanum, administered after each false pain.

HEMIPLEGIA—CURE NEARLY PERFECTED BY ELECTRICITY.

From the review of the French provincial journals we select the following particulars:—

The manner in which electricity has been seized upon by quacks and other impostors,

is perhaps one of the chief reasons why that powerful remedy has been abandoned by physicians; yet we find numerous cases on record of its efficacy in certain forms of paralysis. M. Bouisson gives the following case:—

Madame B., fifty-six years of age, had always enjoyed the most perfect health, when on the 12th April, without any premonitory symptoms, she was suddenly seized with hemiplegia of the left side. Motility was completely annihilated, but a little sensibility remained. The symptoms were alleviated by blood-letting and revulsives; however, the patient still continued to be very unquiet; she could hardly utter a syllable; there was retention of urine, great constipation, and constant cramps in the paralyzed limbs. In this state Madame B. was submitted to the electric machine. The first experiment lasted an hour, and at its termination the patient, who previously was unable to support herself on the inferior extremities, stood up alone, and was even able to bend the knees slightly. After the second sitting her countenance was much improved, and the sense of hearing became more acute. After an interval of two days a third application took place, and from this moment the patient got rapidly better. A state of plethora set in, which required the use of leeches, purgatives, &c., and after the twentieth sitting the lady was able to return home.

CATHETERISM IN THE FEMALE, &c.

This is an excellent paper in No. 50 of our French contemporary, by an interne of the hospital of *La Charite*. M. Larcher commences by some anatomical remarks on the female urethra. This canal makes a gentle curve, the convexity of which is inferior; its external orifice is lower than its internal or vesical one. The length of the female urethra is from twelve to fifteen lines. M. Larcher has seen one twenty lines in length.

The parietes of the urethra are formed of two membranes: an internal mucous one and an external fibro-erectile eminently contractile membrane; of this last property the author gives a very striking proof.

In ordinary cases the orifice of the urethra is easily found, and the surgeon meets with no difficulty in the introduction of the catheter (let us remark *en passant*, that the French surgeons always uncover the woman and *look* for the orifice); but in others the greatest difficulty is experienced; thus the author relates the case of a female at *La Charite* affected with a cancer of the rectum, which had destroyed the recto-vaginal wall and reduced the whole external genitals to one fungous mass; this woman became affected with retention of urine; the interne attempted to sound her, and in one case succeeded after three-quarters of an hour; on a second occasion he was compelled to renounce the attempt. After enumerating several of the causes which may render the introduction of the catheter difficult, and criticising the rules given by MM. Roux and Velpeau for the introduction of the sound without exposing the woman, the author proposes as the best guide the tubercle formed below the meatus urinarius externus. This however is no discovery, as he seems to think; for the existence of this tubercle and its utility as a guide to the orifice of the urethra, were long ago pointed out by British accoucheurs.

The third part of M. Larcher's paper contains several interesting cases of organic and spasmodic stricture of the urethra in the female. They were all more or less relieved by the employment of the bougie.

SOURCE OF ANIMAL HEAT.

From observations lately made by M. Hermann, it would appear that the modern doctrine of the formation of animal heat is founded upon just grounds. According to this

theory animal heat is nothing but a chemical product resulting from a process analogous to combustion, and which takes place during respiration. In this theory animals who do not form any water by their respiration, ought to produce as much caloric as the carbon which they transform into carbonic acid would emit by being consumed. This proposition has been confirmed on three chaffinches on which M. Hermann lately experimented. In the space of forty-eight hours these birds reduced to a liquid, in the calorimeter of Lavoisier 16,960 grains of ice and 165.2 grains of carbon were found in the nutriment which the birds had taken during that time. These numbers accorded very closely with those resulting from the theory; for if we admit that one part of the carbon, while being converted into carbonic acid, melts 104 parts of ice, the 165.2 grains of carbon should melt 17,180 grains of ice.—*Journal of the French Institute*, No. 81.

INTERPOSITION OF LIGAMENT BETWEEN FRACTURED ENDS OF BONE.

Amongst the operations lately performed here was one by Mr. Keate, in a case of ununited fracture of the left humerus. The woman was admitted into the hospital thirteen months since, having fallen from a coach-box and broken her arm. The usual means were adopted, without however producing any reunion of the fractured ends of the bones; and the woman being in a low state of health, and of a decidedly nervous temperament, she was recommended by Mr. Keate to go out of the hospital to see whether change of air would not benefit her, and to return again whenever she felt better. Accordingly a few months since the woman returned to the hospital much benefited in health, but the fracture remained in the same unsatisfactory state as before. Upon making an accurate examination of the part, it was discovered that there was some foreign substance (supposed to be a portion of muscle) interposed between the fractured extremities of the bone, which prevented their uniting. A consultation of the surgeons was accordingly held upon the case, and it was determined to cut down upon the fracture, remove the foreign body, and place all parts in actual contact.

In performing the operation Mr. Keate made a longitudinal incision about three inches long over the seat of the fracture (about half-way between the shoulder and elbow-joints), and cut down to the bone, between the fractured extremities of which a triangular portion of ligament was found, from the process of ossification having only proceeded thus far towards the formation of a callus. This was dissected out with the scalpel. The fractured ends, which were quite smooth, were cut off with the bone nippers, and a dossil of lint was interposed between the lips of the wound, which were afterwards brought together by straps of adhesive plaster and bandages. Splints were applied, and the woman was sent to bed; after which Mr. Keate remarked, that although in many cases remedies and operations of the above nature were found to fail, they sometimes also succeeded, which he hoped would be the result in the present case. This expectation has since been realized, as the fracture is slowly reuniting.

MENSTRUATION AT ADVANCED PERIODS OF LIFE.

To the Editor of the Medical Gazette.

Sir,—I have always considered menstruation as a very important function in the female economy. I deem it proper for medical men to lay before their brethren all unusual cases that may occur in their practice. Having been engaged more than twenty-seven years in public practice, and not having met till within these few years with any cases like the following, I think it right to send them to you for insertion in your publication. I have read the Medical Gazette since its commencement, but I do not remember any similar cases recorded in that periodical.

Sarah Johnson, aged eighty-seven, was attended by me in the year 1830, in the work-

house of the Liberty of St. Andrew's and menstruated freely, but she in a few days after died. She complained of considerable pain. The fluid did not coagulate.

1830.—Ann Lovell, aged seventy-five, a patient of mine in the Liberty of the Rolls' workhouse, was attacked the early part of this year with violent menorrhagia. The common remedies, inf. rosæ, acid, &c., removed the complaint. The fluid did not coagulate. This woman has continued at irregular intervals to menstruate till the date of this communication: she menstruated last week.

Mary Waller, aged sixty-seven, placed herself under my care in the infirmary for the parish of Islington, also in the year 1830. She was then laboring under a violent attack of menorrhagia. The fluid did not coagulate. She continued two or three years on my list, and died from exhaustion. The usual remedies relieved this woman. It struck me as curious, that in three public establishments distant from each other three similar cases should have occurred in my practice.

Mary Dick, aged eighty, was attacked at her own residence with an abundant flow of the menstrual discharge. When I saw her she was in great pain. She said she had not been unwell for thirty years before. Opiates relieved her, and she finally got well. This case occurred in the year 1829.

Mary Brown, a nurse in Islington infirmary, is at the present time menstruating; she is nearly eighty. She says her menses ceased when she was forty years of age. She has had the discharge now regularly for two or three years, and at monthly periods. Dover's powder relieves her.

Ann Lovett, about eighty years of age, a bed-ridden patient now under my care in the infirmary of Islington, bleeds one month at the nose, and the other month menstruates regularly; the menstrual fluid does not coagulate. When the menses cease leucorrhœa appears. She requires aperient medicines, and occasionally zinc lotions. This patient's case is similar to Lovell's, mentioned already in this paper.

A female consulted me about two years ago for an attack of erysipelas on the face and arms. She stated that she menstruated at seventeen, and continued to be regular till thirty years of age, when the catamenia finally disappeared. She was at the time when under my care forty-four.

In the year 1833, Mary Owen, aged seventy-seven, a pauper patient in the workhouse of the Liberty of the Rolls, was placed under my care, with an abundant menorrhagic discharge. She was in much pain. She had not been in such a state, she said, for these last thirty years. In a few days however she died.

1833, Aug. 31st.—Charlotte Kiernan, aged seventy-one, a pauper patient in the last-mentioned institution, applied to me, with abundant colored discharge from the uterus. She was in much pain. Purgatives and opiates relieved this female. She told me she "was in the same state that she was when at the age of twenty." This woman is now quite well.

Mrs. Gray, a nurse at one of the public institutions under my charge, aged fifty-five years, told me that seven years ago her menses ceased, but for five years she had a monthly discharge, of blood from the nipples. Her health was unimpaired.

It is the general opinion that when aged females are attacked with this peculiar discharge they are sure speedily to die. My experience does not warrant me in forming this conclusion; for several of my aged patients subject to this infirmity are now as well as ever they were, and very likely to continue so; nor do I think they will die, except from extreme age.—I am, sir, your obedient servant,

ROBERT SEMPLE,
Member of the Royal College of Surgeons in London, &c.
2, Rufford's Row, Islington, Dec. 23, 1834.

OBSERVATIONS ON THE PATHOLOGY OF NERVES.

By Hugh Ley, M.D.

Physician-accoucheur to the Middlesex and the General Lying-in Hospitals.

In the course of an investigation of the essential nature of the laryngismus stridulus, or crowing inspiration of infants, which has for some time engaged what of leisure I could command, I found reason to believe that this very peculiar symptom was generally, if not universally, owing to morbid enlargement of the thoracic or cervical absorbent glands, and that these acted by producing some injurious impression upon certain nerves which have an essential connexion with the respiratory function, and directly influence the movements of the glottis. In the progress of my inquiries concerning the nature of this influence upon the respiratory nerves in contiguity with these glands, I found myself materially obstructed by the vague and unsatisfactory manner in which the very interesting subject of the pathology of nerves had been treated, both in the systematic works and the detached communications of writers upon the subject which fell within my reach. The language employed was often obscure; many of the general statements appeared to be merely conjectural and unsupported by evidence; the same symptoms were often referred to different conditions of a nerve, and not unfrequently various and contradictory effects assigned to the same cause.

To clear up some of this obscurity—to reconcile the apparent anomalies, and to disentangle the intricacies which such different and even contradictory statements, not only of various writers, but even of the same author, sometimes in the same chapter of the same work, had produced—I was driven to the necessity of subjecting to a more exact and rigorous examination those recorded cases which are to us what "precedents" are to lawyers, and which alone, when duly examined, can justify the deduction of general principles and the consequent enunciation of general propositions. I found, indeed, that the morbid appearances had been registered with great minuteness and fidelity, but no very definite or perspicuous attempt had been made to trace with accuracy the symptoms characteristic of each, although the association of the two in description must ever be the great end and object of pathological anatomy. Without this association the record of appearances is little worth; it has about the same practical value as the mere *catalogue raisone* of an anatomical museum.

All nosological arrangements are founded upon the resemblances and differences of the essential circumstances of diseases; upon similarity—the foundation of their being grouped together in classes and orders; upon dissimilarity—the foundation of their distinction into genera, species, and varieties. In examining these resemblances and differences in individual instances of "affections" of nerves, it appeared that the phenomena which I was to subject to examination, manifested themselves at their remote extremities, and that like causes, operating upon the trunks of given nerves occasioned like effects upon all their branches beyond the point where the morbid impression is made. In further tracing these phenomena, it seemed to be established that nerves erred either by excess or defect—that each was characterised by its appropriate signs, and originated from causes exclusively productive of each.

These general facts constitute the foundation of that arrangement of the general principles connected with the pathology of nerves, which, in my former communications to the Gazette upon the subject of the laryngismus stridulus, I thought myself justified in propounding, and the truth of which further and more extensive inquiries have tended to establish and illustrate.

But to some these general principles may appear less satisfactory than to myself, and

it has been represented to me that they require the confirmation which details alone can afford them. These details, therefore, will form the subject of the following communication, which, from its unavoidable extent, should you deem it worthy of insertion in your pages, will require to be given to your readers "in divided doses," the apportioning of which I must leave to your own discretion and convenience. I do not indeed pretend or expect, nor shall I attempt to exhaust this interesting and comprehensive subject, to which I am rather desirous to invite the attention of the profession, and to stimulate their curiosity and ardor in the prosecution of further inquiries. It is an extensive field of inquiry, which will amply repay the cultivation.

It may be objected to me, perhaps, that in entering upon this subject I am trespassing upon the manor of others, as these diseases are *local* in their character, produce commonly merely *local* symptoms, and require *local*, and in many instances chirurgical, means for their cure. But these maladies are upon the confines of medicine and of surgery, the boundaries of which it is not so easy as seems to be assumed by colleges and corporations accurately to define; and at all events I may well shield myself under the example of one of our most eminent and accurate pathologists (Dr. Abercrombie), who, himself a practical physician, has very briefly considered the subject of the pathology of nerves, at the conclusion of his valuable "Researches" upon the Diseases of the Brain and Spinal Marrow. But in truth these structural maladies are not sufficiently numerous to enable any single individual, to whatsoever artificial distinction in the profession he may be attached, or to whatsoever branch of the profession he may particularly devote himself, to do justice to a subject so ample, without availing himself of the experience and observations of others; and as the stores of medical literature are open to all, it is only requisite that he who undertakes to investigate or newly arrange the morbid affections of the nerves of the human body, should be tolerably acquainted with their structure, course, distribution, and offices, and with the phenomena of disease in general; that he should have access to the ordinary sources of information, with industry to consult them; and that his habits and pursuits should have accustomed him to the selection, arrangement, and compression of the observations of others, and to the exercise of his reasoning faculty upon the materials which he may thus be enabled to collect. How far it may have been my lot to acquire these moral requisites, or to apply them to the subject under consideration, it is not for me to determine. My purpose has been to simplify the arrangement and facilitate the acquisition of knowledge, with regard to the diseases of these all-pervading instruments of sense and motion, rather than to add largely to the stock of information upon the subject; and if I shall have succeeded in the attainment of these objects of no inordinate pretensions, or of even promoting discussion upon the subject, I shall consider the time and labor which the inquiry has cost me amply repaid.

The general principles to which I here advert are the following:—1st, that if injury or disease affect the trunk of a given nerve, the principal effects will be observed at the remote extremity of its filaments; 2dly, that all the branches proceeding from such common trunk will have a similar disturbance of function from the same morbid impression; 3dly, that the morbid affections of nerves resolve themselves into those of excitement and those of defective energy, each presenting peculiar and definite symptoms; 4thly, that excitement may be the result of mechanical impulse, of vascular congestion and irritation, of inflammation, of structural disease, and perhaps sometimes of simple functional disorder; and 5thly, that diminished energy is generally the consequence of some extraneous pressure upon a healthy nerve, or of atrophy, either primitive or secondary, of the nerve itself.

These principles, almost elementary in character, are founded upon an extensive induction of facts; and abundant evidence of their truth might be adduced if I were disposed to

confine myself within such narrow limits, from a single collection of medical and surgical cases, the record of the transactions of a society which contains amongst its associates many of the most enlightened members of our profession. But it is unnecessary thus to restrict myself; and cautious only of the authority upon which I select my illustrations, I shall proceed to a detailed consideration of each of these general propositions;—

1. *If injury or disease affect the trunk of a given nerve, the principal effects will be observed at the remote extremities of its filaments.*

This statement involves two propositions: the one of a negative character, rather implied than expressed; the other a positive allegation; and both requiring the evidence of facts in their support.

First, it conveys by implication that injurious impressions upon nerves do not produce their effects at the point where the injury is inflicted, nor at any point nearer to the sensorium commune; in the compressed language of a recent eloquent writer upon tic douloureux, "the seat of pain is not the seat of the disease."* This observation, however, applies only to the trunk of a nerve; but it is true in whatsoever part of its course the injury may be received or the disease exist. If the impression be made at the remote extremity of the nerve, the effect is at first confined to the part injured, as where neuralgic suffering has resulted from pricking, pinching, lacerating, or cutting any part of the common integument. This is well illustrated by Mr. Wardrop's case of injury to the sentient extremity of the fore-finger, which was pricked with a gooseberry thorn.† For above ten months after the infliction of the injury the pain was confined to the two first phalanges of the wounded finger, after which, however, a new series of symptoms made their appearance. The observation also applies only to healthy nerves, for it is well known that disease of their texture will essentially modify the results.

Experiments upon animals, when instituted upon those fibrils of a nerve which minister only to sensation, give us little information upon this point, as "these creatures are unable to express what they feel, and their expressions of pain may be rather from cutting surrounding sentient parts than from the injury of the nerve; and at all events they will probably confound these sensations."‡ But accidents and surgical operations, which are just experiments upon the human frame the least obnoxious to objection, will enable us to verify the observation. Those who are guilty of the domestic offence of napping in a chair present abundant illustrations. During sleep under such circumstances, it is far from uncommon (and my experiments have been numerous upon the point) for certain nerves to be so compressed as temporarily to annihilate their function. If the occiput rests upon the sharp edge of the back of a chair, the sentient extremities of the sub-occipital branches suffer, and the occiput is benumbed; if the arm hang over the same edge the median or radial nerve is affected, and the finger and thumb which it supplies lose their sensibility; if the part of the arm immediately above the elbow rests upon the back or arm of the chair, or upon a table, the head being supported by the corresponding hand, the ulnar nerve will be influenced, and the half of the ring finger, with the little finger, will lose all power of sensation; whilst from long continued pressure in sitting in one position, the sciatic is influenced and the foot paralysed. There is no peculiar sensation in these cases at the precise point where the nerve is pressed, nor are we conscious of the result until some little time after waking, when the effects are observable at a distance. Hence it has with much truth been alleged, that nerves in their natural and healthful state are in themselves little sensible, and are "probably media of transmission only,"§ "les agens de la transmission des impressions;"‖ and if the part where the impression is made upon the nerve is little sensible of that impression, *a fortiori*, it may

* Sir Henry Halford. † Med. Chir. Trans. vol. viii. ‡ Sir Charles Bell. § Mayo. ‖ Magendie.

be concluded that the parts supplied by the same nerve above that point, that is nerves to the nervous centre, cannot be cognizant of the injury, or suffer from its immediate effects; "nihil patiuntur artus qui nervos habent supra sedem vinculi vulnerisque natam."*

Secondly, it is made a matter of direct and positive statement, that the principal effects of injuries or diseases are observed at the remote extremity of the filaments of the nerves affected; and such is the force of habit and associations in this particular, that even if the parts which they supply with nervous energy no longer exist, as in some cases of amputation, uneasy feelings are constantly referred to the lost member. The husband of one of my patients, in a *sortie* for the recovery of a superior officer who had been taken prisoner by the enemy, lost his leg by nearly the last shot which was fired at the conclusion of the Peninsular war. From some mechanical irritation, or more probably from chronic inflammation, or other diseased condition of the nerves of the stump, he is subject to such agonizing neuralgic affection, with spasm of his remnant of a thigh, as, notwithstanding his natural cheerfulness and courageous bearing, almost to make him faint. He constantly complains of his offending leg and toes which are buried in the south of France. Similar instances are mentioned by Portal, Swan, Descot, and others,† and they afforded very unequivocal, though indirect evidence, of the principle under notice—that when a strong impression is made upon a nerve in its course, the effects are commonly observed at its remote extremity: "if, however, a doubt should be entertained upon this subject, an attention to symptoms will soon dispel it; when a nerve is irritated at any part between its origin and termination, a sensation is felt as if some injury were done to the part which it supplies. If, therefore, the cutaneous nerves were injured, the integuments of the fore-arm would seem to suffer pain; but if the median nerve was wounded, the thumb and two next fingers would be affected with pain."‡

It may perhaps be somewhat difficult to reconcile this with a speculative opinion of Sir Charles Bell upon this subject, that "a pure and simple nerve has the influence propagated along it in one direction only, and not backwards and forwards; it has no reflected operation or power retrograde; it does not both act to and from the sensorium."§

There is no doubt that the ordinary course of sensation, from the impression on the part to the conception in the sensorium, is in a direction from the extremity of the nerve to the brain; but here an impression is made upon a nerve, and sensation is experienced at a point still more distant from the brain than the seat of impression. How are these apparently conflicting sentiments to be reconciled? Three modes of explanation suggest themselves to my mind: first, the observation which I have quoted may refer only to muscular parts, to which Sir Charles Bell has particularly, if not exclusively, applied his principle of the nervous circle; secondly, there may be actually no exertion of nervous energy beyond the part of the nerve upon which the injury is inflicted, although the limb and the nerve remain entire: the sensation of pain at the extremity may be a

* Haller, Elem. Phys. v. 4, p. 325. Galen has also well expressed the same principle founded upon similar facts: "adeo certe magna quædam vis est in nervis, superne a magno principio affluens: non enim ex scipsis eam, neque connatam, habent. Cognoscere etiam potes hinc maxime, si inciderís quencunque istorum nervorum, aut spinalem ipsam medullam: quantum enim superius est incisione, continuum cerebro, id quidem adhuc conservabit principii vires: omne autem quod inferius est neque sensum neque motum ulli præbere poterit. Nervi itaque rivorum in morem a cerebro, ceu ex quodam fonte deducunt musculis vires."—De Motu Musculorum, lib. 1.

† Frequentissima et antiquissima est adnotatio, si quando digitus aut per, aut crus amputatum pierit; in eo tamen amputato artu dolores vividos omnino percipi, ut sana, sibique constans, anima fallatur, atque in eo artu dolorem se percipere suadeatur: qui dudum detruncatus computruit neque nunc ulla pais est nostri. Ipsam flexionem detruncati artus se percipere credebat qui truncum brachium flectebat cujus manus perierat.—Haller, Elem. Phys. v. 4, p. 305.

‡ Abernethy on the ill consequences of venesection: Surgical Works, v. 2. p. 159.

§ Sir C. Bell on the Nervous System, p. 232.

delusion, the result of those powerful principles in the physical and moral constitution of man, habit and association, which we have seen in stumps, leading the patient to refer his sensations to the extremity which he has lost, even to the belief in the perception of flexion in the amputated member: thirdly, disease may alter the results; and in most of the cases of painful affections it must be borne in mind that there is some structural disease of the nerve in its course. But I am free to confess that these suppositions do not altogether remove the difficulty from my mind. Still, conceding all that may be deduced from this apparent anomaly, it remains substantially and perhaps universally true, that "if we select a filament of a nerve, and if its office be to convey sensation, that power shall belong to it in all its course wheresoever it can be traced; and wherever in the course of that filament, whether it be in the foot, leg, thigh, spine, or brain, it may be bruised or pricked, or injured in any way, sensation and not motion will be the result; and the perception arising from the impression will be referred to that part of the skin where the remote extremity of the filament is distributed."*

This general principle, then, as far as sensitive nerves are concerned, is abundantly established; but it is equally true of motor nerves. "Irritato nervo convulso in musculo oritur qui ab eo nervo ramos habet."† "A rabbit was struck behind the ear so as to deprive it of sensibility, and I then exposed the spinal marrow. On irritating the posterior roots of the nerve, I could perceive no motion consequent in any part of the muscular frame; but on irritating the anterior roots of the nerve, at each touch of the forceps there was a corresponding motion of the muscles to which the nerve was distributed. Every touch of the probe or needle on the threads of this root was attended with a muscular motion, as distinct as the motion produced by touching the keys of a harpsichord."‡ "The nerve of the fifth pair being irritated at its root in an ass, the moment it is killed the muscles of the jaw act, and the jaw closes with a snap."§ The same nerve being irritated where it lies in the sphœno-palatine fissure, "the jaws came together with much force; indeed, so as to nip an assistant's finger severely."‖ Again, "on dividing the roots of the nerve in a living animal, the jaw fell relaxed."¶ These are happy illustrations of the function of the motor branch of the fifth pair of nerves, and afford conclusive evidence that the effects of injurious agents upon nerves are observable at the remote extremity of their fibres.

DR. WILSON PHILIP ON THE SYMPATHIES OF THE MORE PERFECT ANIMALS.

The author commenced by observing, that although many of the most celebrated writers in our profession have treated of the nature and laws of sympathy, the meaning of the term has remained vague, and its phenomena ill defined; a probable inference from which is, that all the facts relating to it have not been before us: that something has been overlooked which is essential to the clear understanding of the principles on which it depends.

It was necessary in the first place to define what is meant by the term Sympathy. According to Dr. Philip it includes those phenomena "in which distant parts influence each other, between which the mere structure of our bodies compared with the phenomena do not point out the exact channels of communication."

After stating the facts, from which it has been generally admitted that the phenomena of sympathy are produced through the medium of the nervous system, and those which have satisfied the best informed writers of our times that they depend on changes which take place in the central parts of that system, and not, as was once supposed, in the nerves

* Bell, op. cit. p. 18. † Haller, Elem. Phys. iv. p. 305. ‡ Bell, p. 31.
§ Bell, p. 35. ‖ Bell, p. 63; note by Mr. Shaw. ¶ Bell, p. 35.

themselves, which appear from a variety of facts to be mere channels of communicating incapable of originating the changes observed in those phenomena, Dr. P. corrects the inferences to which he has been led, relating to the subject of his paper, by the physiological investigations in which he has been so long engaged.

Is there a common centre of sympathy, or are there more than one such centre? The author refers to an extensive set of experiments, undertaken for the purpose of determining the line of distinction between the sensorial and nervous functions, properly so called, and the relations these functions bear to each other, and to the other functions of the living animal; from which it appears that as the muscular is independent of the nervous power, but in its various functions more or less subjected to it, the nervous in like manner is independent of the sensorial power, but in all its functions more or less under the influence of that power; and that in the more perfect animals there are two systems—the sensitive and the vital system—so distinct that all the functions of the latter remain after those of the former are finally lost.

It therefore follows, that if the functions of both are dependent on organs belonging to the brain and spinal marrow, as is evidently the case, it cannot be on the same organs; which is farther proved by the parts of the brain and spinal marrow, with which the organs of the sensitive and those of the vital system are associated, having different localities, and the functions of the one being often greatly impaired by disease, while those of the other remain wholly unaffected. Thus it is evident that if both the vital and sensitive organs throughout the various parts of our frame sympathize, it cannot be through the same parts of the brain and spinal marrow. Their centres of sympathy therefore are different.

On the other hand, it appears from the facts stated in the paper before us, that the phenomena of sympathy themselves lead to the same conclusion, namely, that there is a centre of sympathy independent of the sensitive system, and therefore of our feelings—a fact on which depends one of the greatest difficulties which beset the practice of medicine, and which has led, and does still lead, to errors of the most fatal nature. While the sympathies of the sensitive system cannot fail to make themselves felt in the organs they influence, those of the vital system are often obscure, and generally too indistinct to enable us to regulate our plans of treatment by them, until a comparison of the symptoms with the appearances on dissection after death has gradually unfolded the nature of such cases. For example, bilious headaches were at once referred to their source, but ages elapsed before the hydrocephalus internus was traced to the vital sympathies of the liver, and till thus traced it was almost uniformly fatal; because the case which, at least in nineteen cases out of twenty, had produced, and was supporting it, was overlooked.

The obscurity of such cases is farther increased by the sensitive and vital sympathies not prevailing most in the same organs, so that disease often takes a fatal course with little or no affection of those organs, in which the sensitive, which are always the most prominent sympathies, are the most powerful. Of all our organs, the sensitive sympathies are most powerful in the stomach; but the most powerful vital sympathies belong to the liver. It is rare for the sympathies of the stomach essentially to influence the vital functions of distant parts, except through the intervention of the liver. Hence it is that the sympathies of the former are generally more distressing than dangerous, while in those of the latter—an organ of little sensibility—the suffering often bears no proportion to the risk. Without betraying themselves by any symptoms of a formidable appearance or greatly affecting those organs, the sympathies of which from their sensibility are the most prominent, they may be undermining all the powers of life.

It is here, the author observes, that the practice of medicine is at present most defective. Dissection after death is constantly pointing out cases, the progress of which

might have been checked, had we been aware of their nature before the secondary, generally the more formidable, affection shewed itself; or even after its appearance, had we been aware of the cause which had produced and was supporting it.

Our limits do not permit us to follow the author in his illustrations of the principles we have been considering, nor in what he says of the general laws of sympathy, the operation of which may be traced in the affections of all parts of the system. As he regards the vital sympathies as the means by which diseases of continuance become complicated, he considers the little attention which these sympathies have obtained, as the principal cause of the obscurity which attends almost all such cases.

Nor can we follow him in what he says of the other causes, which tend to give to the liver, the influence possessed by it in the animal economy, and for a fuller account of which he refers to what is said in his treatise on the influence of minute doses of mercury in restoring the functions of health. The most powerful of these causes is the peculiar influence of the liver on the brain, through which it appears, from the experiments above referred to, that not only the heart but the vessels also in every part of the body, and that to their minutest ramifications, may be directly influenced in every way of which they are capable. A ready channel is thus opened, through which the state of the liver may influence any part of the frame, however distant.

The author ascribes to the circumstance of the vital sympathies of the liver being so powerful and extensive, the fact that in sultry climates, where the sympathies are most active, all diseases of continuance, whether acute or chronic, terminate in derangement of this organ: and that even in such climates as our own we meet with few formidable diseases in which its affections do not form a more or less prominent part; and in which it is not necessary that the treatment should be more or less modified by the state of this organ.

His conclusion from all that is said in the paper is, that our object in all, and particularly diseases of continuance, should be to watch the vital sympathies, which little obtrude themselves on our attention, but powerfully influence the progress of disease; and which, although modified by causes which he points out in individual constitutions, are in their great outlines the same in all.

CASES OF MENTAL DERANGEMENT SUCCESSFULLY TREATED BY THE ACETATE OF MORPHIA. By Edward J. Seymour, M.D.

After some remarks on blood-letting in mania, Dr. Seymour proceeded to observe, that it is seldom attended with good effect, and that of late years, the soothing system has very generally been adopted by medical men; which system, founded, as it is, on true principles of physiology, is more likely to lead to success than any other. To diminish the increased and morbidly acute conceptions—to soften the sensibility of the organ, and reduce the exaggeration of its natural functions—seems to be the great object; and so far from such a condition being the result of too great a flow of blood to the head, morbidly stimulating the organ, it often occurs in those who have rather less blood than usual for the maintenance of life in the brain, occasioned by excessive evacuations, watching, anxiety, and by intemperate living.

About thee years ago, Dr. Seymour published some lectures on this subject, in which he described the great advantage which had been derived, at the large lunatic establishment at Bethnal-green, by the preparations of morphia, under the care of Messrs. Beverley and Phillips; and in the present paper he detailed several cases which had occurred to him in private, and which illustrated the same principle.

A lady, aged about forty-eight, was attacked in the month of August, 1833, after ex-

posure to violent distress. Her mind was filled with gloomy ideas, from the almost neglect of great and solemn duties.

Her bodily health was unusually robust, and she had scarcely ever suffered from bodily ailments. In the first instance the patient was bled, and took repeated doses of purgative medicine, but without any beneficial effect.

It was now resolved to try the morphia, and a grain of the acetate was ordered to be taken every night, and the bowels to be kept open by small doses of castor-oil. Ice was kept to the head, in a bladder, day and night, for several days. The morphia never failed to procure a good night, and thus gradually, without any other remedy, the mind cleared up; but the morphia continued to be administered every night for three months, although all trace of insanity had disappeared six weeks from the commencement of the employment of the remedies. No relapse whatever has occurred in this patient.

Two other analogous cases are detailed, and several of a more chronic nature referred to, as having occurred in the author's practice, in which the success of the treatment was equally conspicuous. The remedy appears, according to Dr. Seymour's experience, to have been more remarkably useful in melancholia, "when the mind is tortured by imaginary want, ruin, or crime," than where the patient is possessed by the conceit of superiority (as of superhuman wisdom, &c.), or when it is exclusively engrossed by one all-absorbing idea.

LECTURE INTRODUCTORY TO THE COURSE OF THE INSTITUTES OF MEDICINE.

Delivered by Robert J. Graves, M. D., King's Professor, Dublin.

Gentlemen,—At my last lecture, I allude to some of the effects of temperature on animal bodies, and mentioned some circumstances calculated to throw light on the nature of climate, and its influence on the human race. I told you that other animals are provided by nature with a covering to protect them from the severe cold to which they are unavoidably exposed, either from the change of season or the peculiarities of the place they inhabit. Thus animals residing in the Arctic seas, as the whale, walrus, &c., are furnished either with vast quantities of fat, or with skins which are bad conductors of caloric, and land animals, such as the Greenland bear, are equally protected by a warm coat of fur. Habit, however, will do a great deal towards reconciling animals to change of climate and varieties of temperature. Among the rest, man seems to be pre-eminently distinguished for the facility with which he can adapt himself to vicissitudes of temperature and change of climate. When fortified by habit he can, even without the aid of clothing, bear a very considerable degree of cold. We are told by travellers that the naked New Zealander will rise in the morning from his lair, leaving the green print of his body on the glass, all around being whitened with hoar frost. A few similar instances of the power of habit in resisting cold are still met with, but it is chiefly among barbarous tribes, and the necessity of clothing is now universally felt by civilized man, whose reason and industry enable him to people the whole surface of the globe as far as the limits of the Arctic and Antarctic circles. The negro of Africa exhibits a striking contrast to the New Zealander; for we are told by Clapperton that the blacks appear chilly and suffering whenever the themometer sunk to seventy degrees, and on such occasions they betook themselves to the aid of clothing, to guard against the effects of so unusually low a temperature!

Some countries are fortunate in the enjoyment of a climate exempt from remarkable vicissitudes of temperature; there are no sudden transitions from heat to cold, nor does the summer differ much from the winter. Here it is natural to expect that animal and vegetable life will flourish, and that diseases connected with atmospheric changes will be

few in number and mild in character. Of this New Holland, which enjoys a very uniform temperature, furnishes an apt illustration. Vegetables and shrubs are here evergreen, and the groves and forests are clad in a perpetual verdure. There is no shedding of leaves in winter, and nature presents the whole year round all the luxuriance of summer. Another peculiarity also distinguishes this country; its inhabitants enjoy a total immunity from measles, hooping-cough, and scarlatina. None of these disorders have as yet penetrated into New Holland. Where they exist among the passengers at their departure from these countries, the length of the voyage is so great, that they appear to die away completely before the vessel reaches its destination. It is, however, probable, that if the rate of passage be accelerated by means of steam-vessels, the New Hollanders will not long enjoy this immunity.

There is no subject so interesting, or abounding in curious facts, as that connected with the various provisions nature has made to enable animals to subsist in different climates, and in a great variety of situations. Although the facts connected with this topic belong to the natural historian rather than to the physiologist, yet there are a few considerations which suggest themselves to the latter as particularly deserving of notice.

He who has contemplated the more fertile regions of the earth, their luxuriant productions, and dense population, must be struck with horror when he beholds the deserts of Arabia and Africa, and sees around him a vast extent of dry and burning sand, unfavourable alike to animal and vegetable life. But when he comes to examine the structure of the camel, he finds, in the peculiar conformation of its foot and stomach, a beautiful illustration of the care which nature has taken in adapting animals to particular localities. Again, in the lamas of South America, he finds another variety whose structure is as evidently fitted for another kind of dry and arid soil; hence he is led to the inference that the sandy deserts of Africa, as well as the steppes of America, not only existed before the camel and lama were created, but were formed with such a relation to these animals, that each is mutually adapted to the other. From this it may be inferred that the desert is not an accidental defect and unplanned eyesore on the earth's surface, owing its existence merely to the effects of a destructive power defacing the fair form of nature, but is a settled part of the great scheme of creation.

When we come to the subject of animal function, I shall bring forward some facts with respect to the difficulty or facility which different animals have in accommodating themselves to varieties of temperature. It would appear that some animals, particularly those which inhabit the colder latitudes, enjoy a very limited range. Among these may be mentioned the reindeer, the Esquimaux dog, and the arctic or great white bear. All the Esquimaux dogs brought to this country have perished. Arctic bears when imported suffer very much from the change of temperature, and, in order to keep them alive for any length of time, it is necessary to maintain a certain degree of artificial cold in the places where they are kept. You are all aware that Captain Ross, after having spent four years in the artic regions, became so habituated to cold, that on his return he found it quite impossible to bear the warmth of a London winter, and was forced to remove to a colder and more congenial situation. Every attempt to introduce that beautiful and useful animal the reindeer into England or Scotland, has invariably failed, though in the latter country the moss which constitutes the principal part of its food grows in great abundance. About fifteen years ago I dissected two reindeer that died here, and found that in both inflammation and enlargement of the liver was the cause of death. On the other hand, it is equally curious that most animals brought hither from tropical climates die of some form of scrofula. Monkeys die of consumption; so do lions and tigers. The dromedary which died here some time ago, and which was dissected by Dr. Houston at the College of Surgeons, had tubercles developed in almost every organ of the body. This is a very

important fact in the pathology of phthisis, as tending to prove that although phthisis is in many instances distinctly hereditary (for tubercles have been found developed in the lungs of the fœtus), nevertheless, it may be, and is, frequently acquired. Nothing can furnish a stronger proof that phthisis may be acquired, than the instances I have adduced; for I need not tell you that no lion or tiger is ever born in warm climates of a consumptive sire, or ever dies there of tubercular disease. An additional illustration of the influence heat exercises on the size of the liver, is afforded by the celebrated Strasburg geese. By feeding these birds in a particular way, and keeping them in artificial heat, the liver becomes diseased, grows to an enormous size, and in this state furnishes the materials of a pate, much sought after by the scientific gourmand*. We observe also, that the English in India suffer greatly from liver disease, while on the other hand, negroes and natives of warm countries frequently die of phthisis in England.

I may observe here, that plants and animals exhibit very striking analogies as to the manner in which they conduct themselves with respect to change of climate. It is, however, well known that animals are in general better adapted to bear the vicissitudes of temperature and change of climate, than plants. Take the whole vegetable kingdom, and you will not find any individual of it so extensively diffused as you will find some animals. Man is found in every part of the habitable globe, crows also extend over the earth, several birds, and some of the mammalia, as the sheep, dog, &c., have a very extensive range. Among the individuals composing the vegetable kingdom we do not meet with examples of this general diffusion, and we observe that many are limited to inconsiderable districts, or peculiar localities. Generally speaking, it is much easier to introduce a plant, or animal, from a hot into a cold, than from a cold into a hot country, because our means of producting heat far exceed those we possess for generating cold. Thus we are enabled, by artificial heat, to keep tropical birds, lions, and tigers in this country, and by means of stoves and glass-houses to preserve plants form the hottest countries, but we find it extremely difficult to rear the plants or animals of high northern latitudes.

In concluding these cursory remarks on temperature, I may observe that the study of climate is a matter of important consideration to the physician. I have already stated that the two principal circumstances, which determine the nature of climates, are, their distance from the equator, and their height above the level of the sea. But there are other causes which modify climate in a very remarkable degree, of which we have a striking example in comparing the climate of Dublin with that of Berlin, or that of Ireland with that part of Siberia which lies within the same parallels of latitude. But not only do we observe this difference between the climates of different countries, but, even in the same country and at very inconsiderable distances from each other, do we find places presenting every appreciable difference of temperature. A knowledge of these minute shades of difference is worthy of the attention of the physician, and may be available on many occasions during his professional career.

Let me now direct your attention gentlemen, to the consideration of an agent, whose influence is more closely connected with the phenomena of life than any other,—I allude to electricity, to which, as well as galvanism and magnetism, there is every reason to believe that vitality bears a very intimate relation. Thus we see that electricity exerts a very powerful action, not only on animal bodies but also on plants and vegetables. If

* How many instances occur where our citizens exposing themselves to the long continued operation of the very same causes, confinement, overfeeding, heat, and want of exercise, are affected by them in exactly the same way. How slight the difference between the morbid phenomena, displayed in the post mortem of a city feaster and the autopsy of an overfed goose!

you pass an electrical spark through the leaves of the sensitive plant, it will exhibit a considerable degree of irritability, and will continue to move as long as it is acted on by the electrical stimulus. You are all aware, that trees are frequently killed by lightning. The common opinion on this point is that they are burnt, and so they are when the shock is intense; but we have reason to believe that trees are often killed by doses of lightning, sufficiently intense to produce an impression on their vitality, and that they die not from any scorching or burning, but from the violence of the shock given to their living systems *. Various experiments have been made with the view of investigating this point, and the result has been that an overdose of electricity will destroy the life of any plant. Carvalho killed the balsamina impatiens by shocks too slight to impair its structure. A branch of this plant died the day after receiving the shock, the rest of the plant lived for a few days longer. The branches of other plants survived for a greater length of time: thus a laurel lived fifteen days, and a myrtle thirty. Van Marum and Nairne confirm the fact of the deleterious effect produced on plants by strong electrical shocks, showing that they kill plants and prevent slips from taking root, or budding. On the other hand, small doses of electricity are said to exercise a favorable influence on plants, accelerating their growth, and making vegetation more luxuriant, but it must be confessed that this is by no means certain.

It has been believed that plants are furnished with contrivances to enable them to preserve the electrical equilibrium. Dr. Prout supposes that the down, which covers plants so copiously, has a relation to electricity, and is destined to act by means of its numerous points in restoring and maintaining the electrical balance. We are not, however, acquainted with any plants which give out spontaneously electrical sparks, nor have we as yet been able to detect in them the existence of an apparatus, destined to accumulate electricity.

M. Pouillet has made some very interesting experiments on the development of electricity by growing vegetables, and from which it appears, "That the action of vegetables upon the oxygen of the air is one of the most prominent and powerful causes of atmospheric electricity. If, indeed, we consider that one *gramme* of pure carbon disengages in the act of passing into carbonic acid electricity enough to charge a Leyden jar, and that, on the other hand, the carbon, which enters into the constitution of vegetables, does not disengage less electricity than pure carbon when burned; if we take this account we might, *a priori*, arrive at the conclusion pointed out by my experiments, viz. that a vegetating surface, one hundred metres square in extent, produces in a day more vitreous electricity than would be sufficient to charge the strongest electrical battery." —*Annales de Chimie et de Physique*, tome xxxv. p. 420.

Some difficulties attending the manipulation and management of so very delicate a series of experiments, prevented M. Pouillet from observing whether the electricity evolved by day differs, either as to quantity or quality, from that disengaged by vegetation during the night. Were these difficulties overcome, it seems more than probable that an interesting confirmation of the facts observed by Priestley and Ingenhouz would be discovered; for as plants are found during cloudy weather, or at night, to exhale carbonic acid, and during exposure to the rays of the sun to exhale oxygen (instead of absorbing it as they do in the dark to form carbonic acid), it is obvious, that these two contrary processes will be attended with opposite effects upon the electricity of the air. Now, as on the one hand, Pouillet found that carbonic acid, at the moment of its formation, is

* It has been more than once remarked, that a tree, whose shade had afforded shelter to cattle, and to which they resorted for protection during the heats of summer, is avoided by them with the greatest caution where it has been blasted by lightning.

always positively electrified, it follows that plants must produce by means of the expiration of this acid, a quantity more or less considerable, of positive electricity, which they thus impart to the surrounding atmosphere; as long as night continues, or the weather is cloudy, this process is carried on and that with considerable energy by the whole surface of vegetation in every country, and therefore this period of the twenty-four hours exercises an influence on the electricity of the atmosphere, tending powerfully to augment the quantity of positive electricity it contains. Where however, this same surface of vegetation is exposed to the bright light of day, or the direct rays of the sun, oxygen is no longer absorbed; it is now exhaled, and consequently vegetative electricity is evolved. When we recollect the prodigious activity of vegetation in tropical climates, where day and night differ comparatively little in duration, we at once perceive that we have discovered the existence of causes, whose effects must be most powerful on the electrical relations of the atmosphere. Again when we call to mind the researches of Pouillet on the effects of evaporation, we find that this process, as it takes place from the surface of the sea, must tend to render the superincumbent atmosphere positively electrical, and that too with most intensity during the day, at the very time when the agency of terrestrial vegetation is rendering the air over the land negatively electrical, we get as it were a glimpse at the reason why tropical islands, such as those of the West Indies, must necessarily become the scene of violent electrical phenomena. The period of the day, at which hurricanes and thunder-storms occur there, strongly favors this explanation. The sun rises unclouded, and both land and sea exposed to the full power of its rays, discharge from their respective surfaces vapors loaded with opposite electricities. This process continues during the whole forenoon, and until two or three o'clock in the afternoon; about that hour the encounter generally commences, when the vapors forming clouds, charged with opposite electricities, these clouds mutually attract each other, until finally the sudden union of their electric fluids gives rise to phenomena, of which our most violent storms are but feeble representatives. How wonderful are the operations of nature! The peaceful and silent growth of a vegetation, whose splendor fascinates the eye, develops an agency which opposed to that produced by a rapid but unobserved evaporation from the surface of the surrounding ocean, tends to load the atmosphere with conflicting elements, from the depths of whose strife issues thunder, proclaiming the approach of the hurricane and tornado *.

The effects of electricity on animal bodies are equally remarkable; but as they are generally known, I shall only advert to them briefly. Dead animal flesh, when exposed to strong and repeated electrical shocks, putrefies rapidly. Living animals, even the largest and most powerful, are instantly destroyed if the electrical fluid be administered in a sufficient dose. The shock produced even by a moderate quantity is generally ungrateful to the feelings, and hence it is that some sensitive persons suffer great bodily distress during a thunder-storm. This is attributed by persons ignorant of the intimate connexion between electricity and the nervous fluid to fear or fancy, but in some cases with little justice, for the bodily inconvenience felt under such circumstances is sometimes extreme. "During a thunder-storm the air is generally loaded with a great excess of electricity, which cannot escape into the earth on account of the want of moisture

* The above theory, which suggested itself to me at lecture, when speaking of the effects of vegetation in developing electricity, may perhaps be tenable. M. Auguste Delarive, however, is not inclined to allow that the electricity of the atmosphere, its vapours and its clouds, can be derived chiefly from vegetation, and the chemical actions (including evaporation) which take place on the surface of the land and waters. These causes he thinks insufficient to account for the great quantity of electricity the atmosphere contains. In this opinion Becquerel concurs. I am nevertheless induced, by what Pouillet says, to think that the quantity of electricity thus developed must be enormous, particularly in tropical climates.

The consequence must naturally be the appearance of various electrical phenomena. Thus, on the 8th May, 1831, the whole atmosphere appeared on fire after sunset in the neighborhood of Algiers. White flames were seen at the points of the flag-staffs on the ramparts for the space of half an hour, and the points of the hair of some officers who were walking seemed to be tipped with a similar luminous appearance. On raising up their hands they were astonished at perceiving similar points of light issuing from the tops of their fingers. *All the persons who were exposed to the influence of this highly electrified air experienced spasms in their limbs, and an extreme state of lassitude.**" On the other hand artificial repletion with the electrical fluid is known to produce in many persons an exhilration of spirits. Mr. Smith, of Fordham, states that in eight persons through whom the electrical influence was passed, the pulse was invariably reduced in frequency after fifteen minutes.

You are aware of the effects which electricity produces on the economy in various forms of the disease. Tumors have been absorbed, dropsies cured, asthmas relieved, and paralysis removed. You are also aware that electricity manifests its effects in a more uniform and constant manner, as shown by the sensation of heat and muscular contraction to which it gives rise, and that these effects may be produced by shocks, sparks, or through the medium of the electrical aura. It has been related by Mr. Smith, of whose experiments I have already spoken, and the facts are referred to in the last edition of Edwards's work on the Influence of Physical Agents on Life, that ague has been cured by electricity: that it reduced the pulse thirty beats; stopped the cold stage, and prevented the paroxysm altogether. But a more curious fact than this, and one which, if likely to be confirmed would be deserving of the most accurate investigation, is that the vaccine virus, by means of a current of the electrical fluid, may be made to pass from an infected person along a wire, so as to convey the infection to a scratch or abrasion of the skin in the arm of a person to whom the other end of the wire is applied.

You are aware of the passage of the saline constituents from one vessel to another through the medium of the connecting wire, in cases of chemical decomposition, effected by means of electricity, a very remarkable phenomenon, and one which affords some reason to suppose that the fact just now mentioned respecting the transmission of the vaccine virus may be true.

I shall postpone to a future opportunity a detail of the facts by which Dr. Wilson Philip has attempted to prove the identity of the nervous and electrical influences. I shall also defer an account of those researches which have been made on the subject since the publication of Dr. W. Phillip's theory, merely remarking, for the present, that these researches have tended somewhat to shake the validity of his opinions, though they have not impugned the facts on which those opinions are grounded.

Dr. Wollaston, having observed the great rapidity of chemical decomposition produced by this agent (and, indeed, at present chemical and electrical action are considered to be very analogous, if not exactly the same), was led to think that all the secretions of the body were the effect of electrical action operating in various modes, and producing from one organ a serous, from another a mucous, from a third a salivary secretion, and so of the rest. In order to prove the possibility of chemical decomposition being effected by very weak electrical agency he made an experiment, by which it appeared that a solution containing muriate of soda was decomposed by a single pair of plates. He was of opinion that the qualities of each secretion pointed out what species of electricity preponderated in each organ. Thus he conluded, as Napoleon † had already done, that the

*Voyage dans la Regence d'Alger. Par M. Rozet.

† Becquerel. Traite de l'Electricite et du Magnetism, p. 164.

superabundance of acid generally present in the urine, proves that positive electricity prevails in the kidneys, while the alkaline nature of the bile marks an excess of negative electricity in the liver. The minute anatomy of glands has of late received most valuable additions from the labors of Muller and other German physiologists,* but as yet no one has attempted to prove that there is any thing in their structure evidently designed for the accumulation of electricity. Wollaston's hypothesis appears to me, notwithstanding, the most probable explanation of secretion which has been yet advanced; and it is by no means impossible that future investigations may succeed in detecting something of those physical differences which enable different glands to act upon the blood in so many different ways through the agency of electricity of various intensity and combination. That this agency is the means employed by nature for separating from the blood the elements necessary for each secretion, seems the more likely, when we recollect that the excretory ducts in every gland terminate in *cul de sacs*, through whose parietes these elements must transude. Electrical endosmosis alone seems capable of accomplishing this task.

The effects of electricity in curing or relieving certain diseases have been already mentioned, and we shall find, hereafter, that galvanism and magnetism have a similar power. One of the modes of applying electricity or galvanism lately resorted to is acupuncturation. On this subject I would refer you for information to the papers published by my colleague, Dr. William Stokes. Acupuncturation, in the common acceptation of the term, has been long in use among the Chinese, and particularly among the Japanese, with whom the whole art of medicine consists in teaching the names of diseases, and the number of needles to be employed in the cure of each. Its introduction into Europe is comparatively recent, and within my own memory. It has been found useful, and its efficacy seems to have been very considerably increased by passing an electrical current along the needle, as recommended by Dr. Stokes. There can be no doubt that, considering the nature of which the materials of the needle are composed, the principal value of this application depends upon electrical influence, and that acupuncture is to be chiefly regarded as affording a means of applying it more conveniently and directly to the part affected. In its simple state, however, acupuncturation has effected a great deal; and I would strongly recommend to your perusal the article on Acupuncturation, written by my friend Dr. Elliotson for the *London Cyclopædia of practical Medicine.*

Another mode of applying electricity has been introduced by Dr. Blundell:—I say a mode of electricity, for it is now proved that the magnetic and electrical influences are identical. I cannot say much with respect to the particular value of this mode as a means of curing or relieving disease. Shortly after the publication of Dr. Blundell's experiments, two or three of my patients, who were attracted by the novelty of the results, and entertained very sanguine expectations of receiving benefit from the application of the magnet, made several experiments on themselves but without any decisive result. One of them in particular, a lady of a literary turn, got a powerful magnet, in the hope of obtaining some alleviation of her complaint (tic-douloureux), but, unfortunately, she did not receive the slightest benefit after a long and persevering trial. I would not, however, prejudge the utility of the magnet, or reject its use, on this account, as I feel convinced that it may be found applicable to the cure or relief of other affections, although, in many of those complaints in which much has been expected from its influence, it has proved inefficacious. It has been asserted in the *Lancet* (the journal in which Dr. Blundell's experiments first appeared), that one pole of the magnet produced a cessation, while the opposite one caused an increase of pain.

* See a paper on this subject in the first number of the Dublin Medical Journal.

I had lately an opportunity of witnessing a case in which the patient, an exceedingly irritable and nervous gentleman, asserted that he could always distinguish one pole of the magnet from the other, by means of the different sensations they produced in the painful parts of his body. If reliance can be placed on the accuracy of the experiments made on the celebrated and unfortunate Caspar Hauser, there can be no doubt that magnets exert a powerful influence on the body, for he is said to have been always aware of the vicinity of a concealed magnet, or even of any common metal, in consequence of the exceedingly uncomfortable sensation it occasioned.

I do not allude here, gentlemen, to what has been termed *animal magnetism*, which has been supposed to consist in the transmission of certain influences from one animal body to another; nor is it my intention to take up your time with a recital of those wonderful performances which have recently engaged the attention of a scientific committee at Paris. During my residence at Berlin, I had ample opportunities of witnessing the deceptions practised by the professors of animal magnetism. Like every other new species of quackery it made a great noise at first, and gained several converts, but the Prussian Government (which ever watches carefully over the true interests of its subjects) saw through the imposition, and put a stop to their proceedings. I am fully impressed with the conviction that the boasted results of animal magnetism are chiefly attributable to the imagination. There are, no doubt, certain influences communicable, through the medium of the senses, from one person to another, as you may perceive in the well-known instance of yawning. Thus, if one person in a company yawns, many others will involuntarily do the same thing; and something similar may be observed in the case of laughing, sighing, &c. With respect to the stories that have been related of magnetic sleep and somnambulism, I need only say, that I look upon them as I do on other similar statements—in the light of gross impositions. The animal magnetizers have, however, taxed human credulity too far in their account of an operation said to be performed some time ago at Paris, in which we are gravely informed that a young woman was thrown into a magnetic sleep, and kept in that state while a surgeon was going through the different steps of the process of amputating her breasts, and, when all was over, she awoke at the bidding of the magnetizer, perfectly unconscious of having undergone any operation. If any thing were wanting to show that the whole system is a system of deception (I occupy your attention unwillingly), it would be the fact, that persons thus magnetized are said to become possessed of a species of second sight, and of knowledge not obtained through any of the usual avenues; that they answered questions touching the condition of persons far distant, and told facts and circumstances which had taken place, and of which they could have no cognizance. I can only say, in taking leave of this matter, that our spirit of investigation in Dublin is not sufficiently advanced to deem it necessary to occupy the attention of a scientific committee with a subject of so equivocal a character.

It is remarkable that no land animal, bird, or reptile, is provided with an apparatus for accumulating and propagating electrical influence. Among fishes, however, this is not the case, for we find six different species possessed of this provision, viz. the torpedo ocellata, torpedo marmorata, silurus electricus, gymnotus electricus, trichiurus Indicus, and tetrodon electricus. In all these there are electrical organs, which are charged and discharged at the will of the animal. They can also proportion the quantity of the electrical fluid discharged, and give a slight or strong shock according to pleasure. As long as the animal chooses, it remains quiescent, but whenever it approaches any object into which it wishes to discharge the electrical fluid, the shock is immediately given. It is in this way that they kill the different species of fish on which they subsist. The shock com-

municated by some of these animals is extremely severe. Thus a gymnotus, or great electrical eel, by applying itself along the belly of a horse swimming in the water, is enabled to benumb and drown the animal in the course of a few minutes, by means of a quick succession of shocks discharged into his body along the region occupied by the heart, the great viscera, and the plexus cœliacus.* The shock is propagated by bodies which are good electrical conductors. Messrs. Humboldt and Bonpland were unable to detect any traces of free electricity in these animals, which Becquerel says may be explained on the supposition, that the shock like that produced by a Leyden jar, depends on the sudden restoration of the electrical equilibrium. In many of those rivers in which the gymnotus electricus abounds, horses have been known, while in the act of swimming across, to be so much weakened by the repeated shocks, that they have become quite powerless, and sunk to the bottom, and it is even stated that they are sometimes sufficiently intense to kill the animal at once. Hence it is a common practice with convoys in South America, to collect a number of wild horses and drive them across these rivers, in order to exhaust the gymnoti of their electricity before the convoy passes.

It is a very curious and remarkable fact that the discharge of electrical influence is entirely subject to the will of these animals. This would seem to indicate a very close connexion between electricity and volition, and if there was no other fact to show the intimate relation between electricity and the nervous influence, this would go far towards establishing the analogy. It would appear that this control over its electrical power is necessary for the animal, in order to enable it to destroy its prey more effectually, for if it were obliged to discharge the whole of its electricity at once, or on very small objects, its shock would be too rapidly expended. On the other hand it has been observed, that by giving out repeated shocks, these animals become exhausted and tired, another point of resemblance between electrical influence and nervous energy. Again, when we examine the electrical organs of these animals, we find that although they are not organs of locomotion, yet they are, like these organs and others in which a great quantity of nervous energy is expended, furnished with very large nerves. In some of these animals the nerves which supply the electrical apparatus are derived directly from the spinal cord; in most, however, they are derived from the fifth or eighth pair, sometimes from one sometimes from an other, and occasionally from both. This is a very curious and interesting subject for investigation, and I shall refer to it again when we come to speak of the functions of the nervous system. Indeed when we reflect that the electrical influence is completely under the control of the will in these animals, that they can regulate the quantity discharged, making the shock strong or slight according to pleasure, that like the nervous energy it becomes impaired and exhausted by being exercised for a length of time without any rest or intermission, and that the apparatus in which it is contained is supplied by remarkable large nerves, every inquiring mind must be struck with the connexion between nervous and electrical influence.

ADDITIONS TO M. MAGENDIE'S FORMULARY HIN IS EIGHTH AND LAST EDITION.

Lactic Acid.—The existence of lactic acid has for a long time been doubted. It is true, that it has been admitted by some of the most distinguished chemists, but then, again it has been denied by others of equal celebrity, and who have believed it to be nothing more than acetic acid. The advanced state of therapeutics has, at the present day, decided the affirmative of this question, and it appears to M. Magendie probable that it will become a very useful medicine.

* Humboldt.

The process for obtaining Lactic Acid.

It may be extracted from milk, or from the juice of the red beet root. When procured from the latter, the juice is placed in an oven which is kept at the constant temperature of 25° to 30°. In the course of a few days a thick fermentation takes place, and hydrogen mixed with carburetted hydrogen gas in great abundance escapes. When the liquid has retaken its primary fluidity the fermentation has ceased, which, in general takes place in the course of two months. This is then evaporated to the consistence of syrup. The whole mass is soon traversed by a multitude of crystals like *mannita*; these are washed with small quantities of cold water and compressed, and then are of the greatest purity. The mass otherwise contains a juice, which possesses all the properties of the sugar from grapes.

The product is then heated with alcohol, which dissolves the lactic acid, and a great quantity of matter is deposited, which has not at present been examined. The alcoholic extract is again washed with water, and a fresh deposition is left. The solution is afterwards saturated with the carbonate of zinc, from which there results a precipitate much more abundant than the former. After concentration the lactate of zinc crystalizes; these crystals are then treated with water, to which some animal charcoal is added, previously, however, washed with some hydrochloric acid. It is now filtered, and the lactate of zinc separates in perfectly white crystals; these crystals are again washed in boiling alcohol, in which they are soluble. By afterwards mixing this with barytes and sulphuric acid, the lactic acid is withdrawn from it. By agitating this with sulphuric æther it becomes separated from traces of flocculent matter.

A large quantity of milk left for a long time to fermentation, and treated in a similar manner, furnished also some lactic acid. M. Corroil has recognised its presence in an infusion of nux vomica (*Strychnos nux vomica*).

ANATOMICAL DESCRIPTIONS OF THE PARTS CONCERNED IN INGUINAL AND FEMORAL HERNIA.

Translated from the French of M. Jules Cloquet, with lithographic plates from the original etchings, and a few additional explanatory notes. By A. M. M'Whinnie, Assistant Teacher of Practical Anatomy at the Bath Hospital, pp. 48. 1835. Highley.

The anatomy of the parts connected with inguinal and femoral hernia has only within the last few years been fully investigated, and the application of this knowledge been made to the reduction of a hernial tumor by the "taxis," or for dividing the stricture when the tumor is strangulated.

In oblique inguinal hernia, the stricture may exist in three distinct parts,— at the external ring, at the internal ring, and according to Sir Astley Cooper, where the conjoined tendons of the internal oblique and transversalis muscles cross the inguinal canal. We can readily comprehend how the dense and almost inelastic boundaries of the external ring can afford a powerful resistance to the return of a large tumor into the abdomen as well as mechanically to compress it so as to interrupt the circulation of blood, and thus produce gangrene, &c., but we have more difficulty in comprehending how the internal ring can produce a similar kind of obstruction; we doubt the position on account of the negative properties, the loose and almost unresisting boundaries of the opening in the fascia transversalis. It exhibits a striking contrast with the external ring, the inner border only of the former being tense. With respect then to the third seat of stricture, Sir A. Cooper describes the "conjoined tendons" as crossing the spermatic cord in front, at the upper part of the inguinal canal, and, after they have arrived at its inner side, as winding behind the inferior part. Mr. Guthrie describes the spermatic cord as passing through a slit in the fibres at the inferior part of the transversalis, so that some fibres will be in front of and others behind the hernial tumor; hence the latter enter into the forma-

tion of the posterior wall of the inguinal canal; and, from this disposition of the fibres, he imagines, and we think very justly, that a more complete constriction of the neck of the sac will be effected by the operation of two forces in opposed directions than if applied but in one, viz.—that of exerting the compression in the antero-posterior direction.

It is a paradox, but nevertheless true, that both descriptions are correct; for we have seen the whole of the muscular fires of the transversalis pass over the spermatic cord, and the superficial lamina of the posterior boundary of the inguinal canal consisting of but a thin reticulated structure; in other subjects assuming a true aponeurotic character, sometimes, and most generally, distinctly muscular, and occasionally presenting an intermixture of muscular and aponeurotic structures. In each case the structure under notice was most clearly the inferior border, or in so intimate a connexion with the transversalis, that we regarded the former as essentially a part of the latter. We believe this particular and all important structure to be capable, chameleon like, of assuming different phases and colors. Hence the solution of the paradox.

Let us see what Cloquet says on the subject:—

"*Transversalis Abdominis.*—Beneath the internal oblique is the transversalis, the lower part of which is attached externally to the inner border of the crista and anterior superior spine of the ileum, and also to the external part of Poupart's ligament. Its lower fibres are very thin, take a transverse direction, and terminate in an aponeurosis, which, passing inwards, is united to that of the internal oblique, which is placed in front of it. This aponeurosis is also extended in front of the rectus muscle, to be attached to the linea alba, and to the upper part of the pubes, behind the internal column of the external ring and the pyramidalis muscle.

"The spermatic cord slides underneath the lower border of the transversalis muscle, on a level with the superior opening of the inguinal canal. I have not succeeded," says Scarpa, 'in determining accurately whether or not the lower border of the transversalis muscle contributes in any way to the formation of the principal origin of the cremaster.' I can assert that, in the majority of dissections which I have made, I have been unable to discover that such is the case. In a great number of subjects I have succeeded, though often with much difficulty, in separating the internal oblique from the transversalis, and I have almost always obtained the same result. In some cases, however, these muscles are found to be intimately united, and apparently forming conjointly the cremaster.

"The posterior surface of the transversalis is in relation with the fascia transversalis, which is an aponeurotic expansion hereafter to be described. They are usually connected together through the medium of a dense cellular tissue. Frequently, indeed, it is impossible to separate them; both are attached to the outer part of the tendon of the rectus muscle."

In a foot note we notice what the author regards as an anomaly.

"In two or three subjects I have found that the transversalis muscle was not inserted either into the crural arch or into the pubes. Its lower border was placed about two inches above the point where the spermatic cord enters the inguinal canal, and with which consequently, it had not connexion. I have also seen the spermatic cord, on entering the inguinal canal, passing between the fibres of the transversalis muscle, the fibres being nearly separated from each other, without accompanying the cord in the same manner as those of the internal oblique."

The following description of the inguinal canal, though somewhat elaborate, is yet excellent. It could only be understood, we presume, except by those who are already anatomists.

"*Inguinal Canal.*—From the foregoing description, it is manifest that the spermatic

cord takes its passage, not through a simple ring, but traverses really a complete canal: it is called the inguinal canal. The aponeurosis of the external oblique is reflected, as I have before said, posteriorly (from Poupart's ligament), and, then upwards, to give origin to the fascia transversalis; by this disposition it forms with the latter a deep and narrow channel, the convexity of which is downwards and towards the crural canal, and rests in part on the psoas and iliacus muscles; its concavity being directed upwards corresponds with the inguinal canal. This channel extends from the pubes to the anterior superior spine of the ileum; it gives attachment in nearly its whole length to the internal oblique and transversalis muscles, and further, it lodges in a portion of its extent the spermatic cord in the male, and the round ligament of the uterus. Its anterior boundary is strong, and is formed by the aponeurosis of the external oblique; below and inwardly it presents, near to the pubes, the opening called the inguinal ring; behind it is in contact with the internal oblique. The posterior boundary consists of the fascia transversalis, which ascends behind the transversalis muscle; it is pierced by the superior aperture of the inguinal which is situated above and to the outer side of the inferior opening, and is at the distance of about an inch and a half from it; this distance determines the length of the inguinal canal, through which the cord runs obliquely. Between the superior aperture of this canal and the anterior superior spine of the ileum, the channel of the external oblique receives only the internal oblique and transversalis; between the superior orifice and the inferior it forms the inguinal canal, which contains these two muscles, and the spermatic cord; lastly, on the inner side of the inguinal ring it terminates upon the pubes at a little triangular space, bounded anteriorly by the internal column of the ring, posteriorly by the tendon of the rectus and the pyramidalis, and often by some radiated aponeurotic fibres, which ascend from the external column, in a diverging manner, to be attached to the lower part of the linea alba, after having passed behind the internal column of the ring."

We have noticed only the above anatomical point, and we have done so chiefly on account of its having been one of some recent contention.

One chief reason why many parts of the body are differently described by almost every anatomist, may be attributed to each individual having described parts as they appeared in his own dissections; he has there described what he regarded as the most frequent characters, which were truly but deviations from the normal state. For instance it is usual to describe the brachial artery as dividing into the radial and ulnar, just below the joint of the elbow; but the division so frequently takes place higher up in the arm, that Tiedemann was disposed to infer the latter to be the natural division.

Every work on anatomy that has come from the pen of Cloquet, may be regarded as a fair standard, and in general may be relied on, and the present does no discredit to its author, it contains perhaps little that is new, but what it does contain is practically useful.

The translation does credit to Mr. M'Whinnie.

CASE OF PERFORATION OF THE INTESTINES.

By Thomas Gordon Hake, M. D., and one of the Physicians to the Brighton Dispensary.

A girl named Ellen R., of the age of twelve, delicate in frame, but in the enjoyment of excellent health, until within six months before the invasion of her fatal illness, with the exception of an occasional attack of sore throat, became, in November last, a patient of the Brighton Dispensary. During the previous half-year, she had experienced to use her own words, a "jumping sensation" in the lower part of the bowels; she was also listless and drowsy, and, without holding to some fixture, was unable to stand erect. The whole of a numerous family to which she belonged had lived for a period of four

months almost exclusively on pork. At that time many pigs had died in the vicinity of our town; many, too, which would otherwise have soon perished of disease, were killed for the purpose (to repeat the vulgar expression) of saving their lives."

Since that time several of the younger branches of the family have been visited by various congestions of the brain, bowels, lungs, larynx, &c., but all save one have recovered; and on the history of her disease it is that we have now entered.

After having partaken one day of her usual meal, she vomited with great violence, but before this she had complained of pain in the situation of the lumbar vertebræ. Pain in the left side succeeded, which was augmented by pressure and the act of respiration. There was difficulty in breathing; the dull sound, crepitous rale, pyrexia, &c., were present, together with vomiting of a frothy liquid.

The above symptoms not having yielded to the usual remedial measures in less than three weeks, were, at the expiration of that time, followed by *pain in the left iliac region, sudden, violent, and increased by pressure.* The pain rapidly spread itself, and was accompanied by tenderness over the whole abdomen, which for some days remained soft, but finally became hard and tense. There was occasional borborygmus, and the bowels were constipated while they remained soft; when they became hard, there was no difficulty in acting on them by means of purgative medicines. *The countenance was changed; there was vomiting of a frothy fluid.*

The disease thus invaded the system. The tongue at this period became, and continued of a natural color; there was loss of appetite, and thirst; and the stools were of a dark brown appearance, and fetid odor.

The rhythm of the heart was perfect; the pulse large, strong, frequent, equal. The veins were well developed; the blood drawn from them was dark, buffy, cupped. Except one night, after taking a large dose of calomel and opium, the perspiration was abolished. The urine was in diminished quantity, and of a high color.

There was general atrophy.

The pain in the abdomen, at one time, was nearly subdued, but the countenance remained contracted without intermission. There was pain in the head and eyes, less severe, however, than during the attack of pneumonia. Deafness manifested itself during three or four days, and disappeared, the symptoms being then at their height. The sense of smell was perverted, suffering from an unpleasant state of excitement, until it ultimately was lost. The intelligence of the brain was diminished, its imagination deranged, except at such times as the sufferer might be addressed in a sharp tone. The intellectual functions were delirious, especially during slumber.

The patient complained of pain and cramp in the hip; the thighs were raised on the pelvis; there was snatching of the bed-clothes. *There had been occasional shivering, from the invasion to the termination of the malady.*

On the evening of the second day previous to dissolution *there was vomiting of a seroso-purulent fluid, mixed with intestinal matter;* this continued at intervals to be thrown up in large quantities, during the whole night. On the next day this last symptom was unabated, but on the following morning had ceased, a few hours after which the child breathed her last. From the time that the stercoraceous vomiting commenced no stools were produced by the natural channel.

A considerable quantity of calomel had been administered during the progress of the disease; but while the constitution of the child resisted mercurialization, the mother, who constantly slept with and nursed her, was severely salivated; and the gums of a second attendant were affected as if by infection.

Autopsy.—The body was examined by Dr. Hake and Mr. Rugg. The result of the

vestigation was such as might have been expected from the prominent symptoms. An abscess had formed in the cavity of the pelvis, extending into the inguinal and iliac regions. A false membrane, of a dense, tough nature, formed the walls of this abscess; it was adherent to the intestines, and separable only at the right iliac region. On its internal, free surface this membrane possessed the characters of mucous tissue. Adhering strongly to, and, indeed, lost in the peritoneum itself, towards the abdominal parietes, the bladder, uterus, sigmoid flexure, iliac vessels, &c., this false membrane was easily separated from the peritoneum at the ileum, with the interior of whose canal it communicated by means of a neat, regular opening, which one might have supposed to have been the work of the scalpel instead of the ulcerative process, a true characteristic of the disease. The contents of the cavity were seroso-purulent, mixed with intestinal matter. This fluid was also abundantly discovered in the intestines and stomach.

In various parts of the jejunum and ileum there was atrophy of the mucous and muscular coats, to such an extent as to leave only a thin transparent membrane which had contracted on itself, leaving the canal of no greater caliber than double the capacity of a goose-quill. Atrophy, indeed, may be said to have here gone on increasing until absorption was complete, leaving only the elastic cellular coat of the canal. Inflammation was seen in occasional patches on other parts of the intestines, but no other vestige of it was left on the peritoneum than in the false membrane described above.

In the mesentery there was a small cyst of a dense structure, and containing concrete pus.

Brighton, Jan. 7th, 1835.

REMARKABLE INSTANCE OF HEMORRHAGIC TENDENCY IN A FAMILY.

Dr. Riecken, a German physician, in a recent work, has given an account of a very remarkable hereditary transmission of the *hemorrhœal diathesis* through several individuals in a family. The father of this family, Ernest P., was a husbandman and joiner, who had always enjoyed good health, and at the time of the publication of Dr. Riecken's work, was in his eighty-sixth year. His second wife, by whom he had the children to be mentioned presently, was of delicate health. In her thirtieth year she was attacked with rheumatic gout, and, after this ceased, with curvature of the spine, asthmatic complaints, and frequent pain under the breast bone. By and bye signs of water in the chest came on, general dropsy followed, and she died of that disease in her sixty-sixth year. Neither the wife nor the husband was ever subject to hemorrhage, or to petechial spots. This couple had twelve children, five sons and seven daughters, of whom four died of small-pox, one of eclampsia, and three boys and one girl of hemorrhage.

William Louis, one of the three boys, enjoyed good health till his fourth year, when he was attacked with bleeding from the left nostril, which continued, with occasional intermissions, for eight days, and was only arrested by stopping up both nostrils firmly with the *boletus igniarius* (zundschwamm). Two days afterwards, he was seized with anxiety and a sense of constriction in the præcordia, attended by swelling and tenderness there, then with cold sweating and deadly paleness, and at length with vomiting of black fluid blood, which repeatedly returned, and proved fatal in the course of a week. In another of the boys, John Christian William, blue spots, unattended with pain, frequently broke out on the skin between the first and eleventh years, but were not accompanied by hemorrhage. In his tenth year, he was attacked with violent rending pain in the extremities, more especially in the limbs, which abated in a month and a half, after a hard tumor formed on the left knee. This tumor had been present for a year and a half, when he was suddenly seized with violent toothach in the foremost grinder of the left side of the lower jaw, and the pain was so excruciating that he consented to the ex-

traction of the tooth; the tooth was quite healthy. A gush of fluid blood immediately took place from the cavity, and nothing could check it. The poor boy gradually became blanched like wax, and expired on the eighth day. Philip Henry, the third boy, presented the appearance of blue spots on the skin, particularly of the buttocks, even during the first year of his life, yet without any signs of weakness. When a year and a quarter old, he died while vomiting fluid blood which had begun the day before, without any previous appearance of ill health. The daughter died four days after birth in consequence of hemorrhage after the division of the frænum of the tongue.

The same striking constitutional infirmity likewise appeared among the grand children of Ernest P., born of his youngest daughter, Louisa Catherine. This woman, who is still alive, and in the 32d year of her age, is short in stature, and light haired, has grey eyes, and a delicate fair complexion. She never had purple spots, or exhibited any tendency to hemorrhage; nay, wounds, and even apertures in veins, made by the operation of blood-letting, healed in the usual manner. The menses commenced in her thirteenth year, and were usually rather abundant, and of eight days' continuance. She suffered much from toothach and neuralgic affections of the extremities, was, indeed, seldom altogether free of wandering pains, and, in her pregnancies, was so much affected by a tendency to plethora that it was frequently necessary to withdraw blood. The blood coagulated more slowly than usual, was very dark, contained much serum, and presented a thin buffy coat. The hemorrhage immediately after delivery, as well as the lochial discharge, was always profuse. Her husband is a stout healthy man. They have had six children, four boys and two girls, of whom only the eldest girl and youngest boy are now alive. The other daughter died of convulsions when nine months old, and the three boys of hemorrhage. The surviving girl is very healthy, and never had either blue spots or bleedings.

The four boys were all born easily, and the navel healed up without hemorrhage. They all had a disproportionately large head, with unusually loose sutures, and fontanelles of uncommon size and slow in filling up. Their bodies were delicately and regularly formed, the nails were of the natural appearance, the skin fair and delicate, with the veins shining distinctly through, and the countenance pale, sickly, and bloated. They had all blue eyes, and one of them fair, but the three others black, hair. Dentition went on in all in the usual manner. They were very lively, of mild dispositions, and the eldest showed much cleverness. The operation of vaccination, which was performed by incisions, was not followed by any untoward effects. All had from birth a very fœtid discharge of a white, flaky, puriform mucus from each ear.

The eldest of these boys manifested a distinct tendency to hemorrhage in the seventh month: dark, irregular spots appeared on various parts of the skin, varying in size from that of an *achtgroschen* piece to that of half a man's hand, and without any external injury; and these were at first pale red, but as they increased in size rapidly became bluish-black, and then reddish-blue, bluish-green, and dirty yellow as they were disappearing. At times the body was entirely covered with them; they were attended with hardness and swelling, but not with pain. The first attack of hemorrhage occurred in the first year in consequence of his having bitten the tip of his tongue, and it was not arrested till various artificial means had been tried in vain, and nature accomplished it after the child was reduced to the lowest possible state of exhaustion. When he was eighteen months old a second attack took place in the form of epistaxis, which was not checked till he was almost at the point of death, when it ceased under the use of the acid elixir of Haller and laudanum, and during the deep sleep which supervened. On his awaking, general convulsions attacked him; then deep sleep returned, and after this he awoke refreshed, and soon recovered. From this period till he was four years and a half old, he had

regularly every three months an attack of epistaxis from the left nostril, which continued between four and ten days with occasional intermissions, and was preceded by lancinating headach, sounding in the ears, excitement of the pulse, flushing of the face, and lividity of the lobes of the ears. The blood was dark red, thin, without tendency to coagulation, and towards the close of the paroxysm pale dirty red in color. The hemorrhage never ceased till the child, after repeated fainting fits, was brought almost to the point of death. In his fourth year he complained much of shifting pains, particularly in the left thigh, which were particularly troublesome before the customary bleedings, or on any change of weather, but became much less so on a swelling of the knee-joint making its appearance. The swelling confined him for some time to bed, but it was diminished by proper remedies; upon which a fresh attack of hemorrhage occurred, and after this the pains ceased. The child, however, was pale and exhausted, and in two days he died with all the symptoms of inflammation of the bowels. Sulphate of soda had no effect in checking the hemorrhages in this case.

In the second boy, the blue spots began to appear fourteen weeks after birth. When ten months old, a furuncle formed in the right arm-pit which was carefully opened. At first pus alone issued, but afterwards violent hemorrhage ensued, which continued for three days, notwithstanding the constant use of tents and compresses dipped in alum. After the lapse of nearly three-quarters of a year, an almost fatal hemorrhage followed a trifling injury of the frænum of the lower lip, and this was not checked till on the third day the actual cautery was resorted to. After this, with the exception of the blue spots, the child was healthy, and became plump and strong. But when two years and a half old, plethoric symptoms began to show themselves as in his elder brother's case, and he was attacked with pleuro-peripneumony. Dr. Riecken avoided all evacuations of blood, and brought him through his illness by other antiphlogistic remedies. Suddenly, however, after a return of fever, copious bleeding took place from both nostrils, for which all the usual means, including Glauber's salt, were in vain put in requisition, and it was not till the child had repeatedly fainted, and was as pale as a corpse, and till the blood had in the end flowed for six hours as pale as bloody serum, that the hemorrhage ceased spontaneously. Half a year afterwards he was attacked by flying pains in the extremities, followed by swelling in the left ankle, and when this disappeared, by swelling in the left knee. Recovery, however, was gradually so far accomplished, that the child could walk again, when, in an accidental fall, a small wound not larger than a pin's head was inflicted on the point of the tongue. Profuse hemorrhage commenced, and for five days it continued, although every conceivable remedy was tried, including three applications of the cauterizing iron, till at length the breathing and pulse ceased, the skin became icy cold, the eyes lost their lustre, and death was believed to be at hand. After a time signs of animation appeared; the hemorrhage was found to have ceased, and the child became convalescent. In fourteen days he began to complain of occasional stitches under the ribs of the left side, accompanied with dry cough; and, during a fit of coughing, blood began to gush from both nostrils. The blood was fluid, thin, brownish in color, and fetid. It continued to flow in spite of every remedy which could be thought of, and the little patient soon died slightly convulsed.

The third boy, in consequence of the frænum of the tongue being unskilfully divided, was attacked when three months old with profuse hemorrhage, which lasted for three days, and only yielded after repeated applications of the actual cautery. The blue spots did not begin to show themselves till the sixth month. The plethoric symptoms observed in the two former cases appeared also in the present instance about the thirteenth month, and especially some weeks before his death, which took place after an attack of hemor-

rhage of two days' continuance, occasioned by an injury of the tip of the tongue with an incisor tooth. On this last occasion repeated cauterization was of no use.

In the youngest boy, who is still alive, a chronic, itchy eruption on the face was added to the discharge from the ear, which he had in common with his brothers. Blue spots began to appear on the skin four months after birth; but, subsequently to the administration of ass-colt liver oil (!) to the mother, both the eruption and the livid spots disappeared. Whenever the mother intermitted the oil spots reappeared; and whenever she resumed it, the discharge from the child's ear dried up, the spots ceased to form, and on one occasion he sustained a wound of the ring finger with a sharp knife, yet the hemorrhage was not greater than in other children. Subsequently a furuncle on the shoulder was opened, and a second time a wound accidentally inflicted without any particular hemorrhage. The further history of this case is not given.

Besides the mother of this family, Ernest P. had two other daughters, who, together with their families, never suffered from hemorrhage or ecchymosis; but they were very liable to gout, rheumatism, chronic abscesses, and eruptions. Among his ancestors and collaterals there was no one ever liable to hemorrhage; nor can the least relationship be traced between his family and any of the previously ascertained instances of families possessing this constitutional infirmity.

The author in his general remarks seems disposed to ascribe the constitutional hemorrhagic diathesis to a gouty taint; but this is surely an erroneous idea, otherwise it ought to be much more frequently met with. In the present, as in every previously recorded instance, it is very remarkable that the infirmity was confined to the male branches of the family, and that, nevertheless, it was transmitted through the female branch to the males of the next generation.

ACETUM OPII SEDATIVUM.

To the Editor of the Lancet.

Sir,—Having had the honor of presenting a paper to the *Medico-Chirurgical Society*, which was read at their last meeting (January 13th, 1835), entitled "On the Preparation of the Acetum Opii Sedativum, and its use as a Sedative in the Treatment of Mania, Melancholia, and Puerperal Mania," I will, with your permission, extract that portion of the paper which refers to the preparation, &c.; and I shall feel honored by its insertion in your valuable Journal, in order that the profession may have the opportunity of preparing and giving it a trial, as it is considered to be highly deserving of employment, by authorities so eminent as Drs. Elliotson and Paris.* To Dr Elliotson I am indebted for its name. I am, sir, your obedient servant,

J. H. Horne, Surg. &c.

5 Gerrard-street, Soho, Jan. 14, 1835.

Formulary.—Take three times the quantity of the best opium, reduced to fine powder, that is ordered by the London Pharmacopœia, for two pints of tincture. Add to the opium two pints of dilute acetic acid. After they have digested a few hours, add to them six or eight pints of rectified spirits of wine. Macerate about seven days, and then carefully filter, in order to separate the insoluble parts of the opium. Introduce the liquor into a retort, accurately closed, and distil off the spirit. The product in the retort, after the spirit has all passed over, is the required acetum opii sedativum.

* In commendation of the process and preparation, I am proud to add the following valuable testimony from Dr. Paris:—"To Mr. Horne.—Sir,—I do not see any objection to the process you have suggested for obtaining an acetic solution of the active matter of opium. The product is certainly highly distinguished by its narcotic odor and flavor. I think it merits a trial, for we cannot be too well provided with a variety of forms of so important a medicine. Yours, &c.,

"Jan. 7, 1835. "J A PARIS."

If the distillation be carefully conducted, the result will always prove of one uniform strength. 1 ♏ will be equivalent to iij minims Tincturæ Opii, free from spirit; and will keep, unchangeable, for an indefinite time.

The Acetum Opii Sedativum will be found to be the same as, or very similar to, Mr. Battley's Liq. Opii Sedativus (except in its strength, which latter falls short, according to the opinion of our most able experimentalists, as nearly j to ij, instead of j to iij), a preparation too well known to require description, except in regard to its mode of formation, which the preparer, in spite of his ranking as a scientific druggist, has hitherto kept a profound secret. Should this slight effort of mine be the means of eliciting that secret, my object, in part, will be attained.

The rational of the process may be briefly stated, as follows —The acetic acid unites with the morphine of the opium, forming an acetate of morphia, which is held in solution by the diluted acid; the remaining ingredients of the opium, acted on by the rectified spirits of wine, are extracted, and detained by the acid, after the spirit has been distilled over. I shall be happy to give a fuller description, if required by any of your numerous correspondents, should the subject be considered of sufficient interest to be allowed to excite inquiry in your useful and scientific Journal.

THE LIFE OF A MEDICAL MAN.

By A. Louyer Villermay, M. D. P., &c. &c.

Without retracting the repulsive and dangerous studies of the physician, it can be proved that there is not any career which so rapidly wears away the powers of life, because there is no other which requires a greater activity of body and mind. He has to bear the changes of the weather, continual fatigue, irregularity in his repasts, and broken rest; to live in the midst of miasma and contagion; if in the country, to traverse considerable distance on horseback, exposed to wind and storm; to brave all dangers to go to the relief of suffering humanity. A fearful truth, for medical men, has been established by the Tables of Mortality of Dr. Casper, published in the *British Review*:—of a thousand members of the medical profession, six hundred died before their sixty-second year; whilst, of persons leading a quiet life, such as agriculturalists or theologians, the mortality is only three hundred and forty-seven. If we take a hundred individuals of each of these classes, forty-three theologians, forty agriculturalists, thirty-five clerks, thirty-two soldiers, will reach their seventieth year. Of a hundred professors of the healing art, twenty-four only will attain that age.—*Journal des Connaissances Medicales.*

INJURIOUS EFFECTS FROM THE HOMŒOPATHIC DOCTRINE.

We have observed in the wards of Dr. Elliotson of this hospital two cases of acute rheumatism, one of which shows the miserable effects of this doctrine, and the other clearly points out the beneficial advantages of rational treatment. It is not our intention here of giving these cases to warn medical men against the absurdity of the doctrine, but simply to show those disbelievers of the medicinal art, that by putting themselves under men, who, ignorant of the aid of medicine, pretend that they can check the progress of disease, while the latter is undermining the constitution, renders the unfortunate patient a miserable object for many months, if not even for life.

The first case was a woman, about thirty years of age, who had suffered from acute articular rheumatism, which she stated came on after getting very wet. She was for some considerable time under one of the celebrated homœopathic docters, who, after exhausting her pocket, and nearly ruining her constitution, left her in a very hopeless state. About six weeks ago she came to this hospital; at the time of her admission she was in a very

emaciated condition, her countenance indicated the greatest anxiety. She complained of pains in her limbs, which had become so aggravated, that she was deprived of all nocturnal rest. Two large sloughing sores were situated opposite to the pass of the sacrum, caused from the position in which she had been constantly obliged to lie. On Dr. Elliotson seeing her, he prescribed, immediately an hydrostatic bed, and from her debilitated appearance, ordered tonics, &c., to support her weakened frame. Ever since her admission she has lain in a very precarious state. At the present time she remains in the hospital, and is still obliged to be kept on the water bed. Her strength, though certainly improved, continued to make progress very slowly.

The other case occurred in a man, who suffered also from the most severe articular rheumatism, produced from getting wet. He immediately applied to the hospital, and was admitted during the acute stage of the disease. There were heat, swelling, and redness affecting the knee and ankle joints. The man also suffered from slight febrile symptoms. Bowels generally costive; urine scanty, and high colored; tongue coated with white mucus. Dr. Elliotson, under whose care he was admitted, immediately placed him under an active antiphlogistic treatment. After two or three bleedings, the symptoms gradually decreased: cold water was applied to the affected parts, and, in the course of a fortnight, the man perfectly recoverd, and left the hospital apparently in a good state of health.

It is to be remembered that both these cases originated from getting wet. Both patients previous to the attack, were in a robust state of health. There was nothing, in fact, that could account for difference of termination, with the exception of a proper treatment for the one, and an absurd, or no treatment, for the other. Is it possible, after so many deaths that occur from quackery, after so many every year are rendered wretched from such treatment, that such murderers are allowed to exist?

New "Porte-Caustique" for the Urethra.—At the meeting of the *Academy of Sciences*, Jan. 5, M. Tanchou presented a new instrument calculated to introduce caustic into the urethral canal without any of those inconveniences common to most others.

It is composed of a common portecaustique, but this is mounted on a wire-spring stalk which permits it to turn in every direction without injuring the canal: besides, it is directed on a blunt-pointed stylet which advances before it: thus, first, the danger of making a false passage is avoided; and, secondly, the caustic is applied immediately upon the point where the surgeon desires to act.—*Gaz. Med.*

Cesarean Operation.—On the 20th of December last, at seven o'clock, P. M., Professor Stoltz, of Strasbourg, performed this operation on a female, 26 years of age, whose height did not exceed 44 inches: the antero-posterior diameter of the pelvis was estimated at two inches and a half. The child was extracted alive and healthy, and four days after the operation, the patient was in a most favorable state.—*French Gazette.*

We have extracted the following highly interesting case of poisoning by sulphuret of arsenic, from the London Medical Gazette. The exhumation took place fourteen months after interment. The medical testimony is given with a clearness and precision highly creditable to the witness, and will be perused with advantage by the profession in this country.

INQUEST AT BRISTOL, ON THE BODY OF MRS. CLARA ANNE SMITH.

Charge of murder by poisoning—Report of the Professional and other Evidence.

The proceedings of this important inquest commenced on Wednesday, the 24th ult., and were continued, with the intermission of Christmas Day and Sunday, until Tuesday

evening, the 30th, when the jury delivered in their verdict of Wilful murder against Mrs. Burdock, *alias* Wade.

On Friday the coroner transferred the scene of the inquest to the theatre of the Bristol Medical School, and the first witness examined on Saturday morning gave

Evidence regarding the Morbid Appearances.

Dr. Henry Riley stated that he went with Mr. Kelson and others to open the body of a female interred in St. Augustine's church yard. On the coffin plate, which was partially destroyed by rust, was written "Mrs. Smith," aged sixty odd years; the grave was much deeper than usual for so common a coffin, and there was no water at the bottom; the coffin was made of common elm, such as is used for burials of paupers, and was screwed down in the usual way. On the lid being removed by the undertaker, they saw the remains of a human being; there was some loose earth on the breast and abdomen, which had got in through a slit in the lid, and a considerable quantity of water, which covered part of the breast, the abdomen, legs, and arms; the upper surface of the face and neck were above the level of the water; the body had on a shroud, an under garment, a pair of stockings, marked with red thread C. S., and the remains of a cap could be traced on the head. The body clothes were slit down the centre, so as to throw the dirt which had fallen through the opening of the lid on either side; by these means the body was exposed to view; it was that of a thin person; the chest had not fallen in, and there was no appearance of its having been opened. Mr. Kelson and witness then opened the chest and abdomen, by cutting through the cartilages of the chest and ribs on either side of the sternum, continuing the incisions downwards; thus the chest and abdomen became fully exposed. They found that all parts which were below the level of the water were turned into adipocire; the external surface of the stomach and intestines appeared of a pale bluish color; there did not appear any traces of disease or inflammation of the peritoneal surface of the abdomen; he did not think that there was any water in the latter cavity until it flowed into the thorax, and thence into the abdomen, at the time of opening; they next took out the whole of the intestinal canal from the œsophagus downwards, and placed the different parts in separate vessels; in separating the small intestines from the duodenum, they noticed a considerable quantity of a yellow substance covering the mucous membrane of the latter, and were surprised to find that the whole of this canal presented such an extraordinary degree of firmness, and was so slightly decomposed; it was as firm as that of persons who died in an ordinary way, and who have been dead but a few days; the liver had shrunk to a fourth or fifth of its natural size; it was not thicker than his hand; the pancreas presented nothing peculiar in its appearance; the lungs had collapsed, and were reduced to a fourth of their volume: they were of a dark color, approaching blue or grey; he did not see any thing like tubercles in them, nor any thing pecular with regard to the pleura, nor bid he observe any adhesions; the heart was collapsed and shrunk, but there was no appearance of disease in it; the diaphragm was little changed, and perfect. Witness cut off the head, for the purpose of identity by the teeth. The stomach and alimentary canal were removed to the Medical school for examination; there were yellow spots in several parts of the peritoneum; they were of a bright yellow color identical with that alluded to as being seen on the mucous membrane of the duodenum; they were in the largest quantity on the stomach, and also visible on the upper part of the intestines, and were besides visible in one or two places on the mesentery; where the spots were seen outside, they were also traced internally, as extending through the whole substance of the intestines; the mucous membrane of the stomach was firm to an extraordinary degree, and there were no ulcerations upon it; the dark red color it presented might either proceed from intense inflammation or from decomposition; he

inclined, however, to the opinion that it was the former, otherwise the membrane could not have been so firm; the greater portion of the spots were near the pyloric extremity of the stomach; the yellow matter was spread over the whole mucous membrane of the stomach as well as the duodenum; it could be scraped off in large quantities, and especially from the stomach; the matter most resembled in color sulphuret of arsenic, commonly called orpiment; he did not think that it arose from an infiltration of bile; the mucous membrane of the jejunum presented the same dark color; it was equally firm with the other parts; traces of the yellow matter were also seen in this portion of the intestine; in the great intestine the mucous membrane was of a very dark red, it was extremely firm and spotted of a dark slate color, particularly so in the neighborhood of its upper part of the near ilio-cœcal valve; it had no yellow spots or ulcerations; the appearances of this intestine were such as are commonly found in cases of chronic diarrhœa of long standing; the slight change it had undergone was as striking as that of the stomach; in the latter and duodenum he saw little else but this yellow substance: in the smaller intestines there was a small quantity of a brownish fluid, something like cocoa. He attributed the firmness of the intestinal canal to some antiseptic substance, and sulphuret of arsenic was said to be so in a very great degree; he did not mean to say that there were no tubercles in the lungs, but merely that he did not see them; the dark slate color of the mucous membrane of the intestinal canal is said by the French pathologists to indicate chronic inflammation.

Cross-examined by Mr. Payne (counsel for the defence).—A chronic inflammation would certainly occasion death, and it might have occasioned a griping pain in the side. Witness had not seen much of the effects of arsenic on the human body, that is, to the extent of death; the sulphuret has the same general effects as the white oxide of arsenic; the old opinion was that they did corrode, and the modern one that they do not; he was convinced that the yellow spots on the stomach penetrated from the inside to the outside. Witness has never seen a person killed by taking arsenic; it was used in cases of cancer, and some others, as cutaneous diseases, fevers, &c.; it was never administered in this country as orpiment, but when combined with an alkali, and it was then called Fowler's solution. This was the first stomach poisoned to death by arsenic that he had seen; none but a rogue or a madman would administer arsenic in so large a quantity as had been found in this stomach by Mr. Herapath; if any medical man had done it, he would deserve to be hanged. In administering Fowler's solution they proceeded with the greatest care: if arsenic were exhibited, they would expect the appearances found in this old lady's stomach, and he felt as confident as that he sat there that her death was occasioned by arsenic; the grave in which she was interred was a deep one for so poor a coffin; in some cases graves were eight or nine feet deep, and from the number buried in them the last body did not probably lie more than two feet from the surface—a very unhealthy and abominable practice.

Dr. Riley was, in a subsequent part of the proceedings, recalled, when he described the effects of Fowler's solution as distinguished from the orpiment that had been administered in this case; the effect of arsenic when taken in over-doses, would be an inflammation of the mucous membrane of the intestinal canal, accompanied with great emaciation and debility, loss of hair, and occasionally of the nails. He had heard the evidence of the girl, Allen, and his opinion was that the deceased had been laboring under a most violent ptyalism, because the membrane of her mouth had been stated to be swelled, ulcerated, and bled extremely; she spit blood, and her cheeks and lips were swelled: he was not aware that ptyalism was the result of an exhibition of arsenic; he did not mean that it would not produce ptyalism, but he had not seen it; he thought it most likely that the ptyalism was brought on by taking mercury; he did not doubt it the least in the world that

arsenic produced death in the present instance. He never saw a case of death occasioned by arsenic in small doses, taken as Fowler's solution; has seen symptoms produced by it short of the loss of hair and nails, such as sickness and loss of appetite; as arsenic becomes oxidized, it is hurtful; the white oxide is used extensively to preserve birds.

Chemical Evidence.

William Herapath.—Is Lecturer on Chemistry and Chemical Toxicology at the Bristol Medical School; was applied to on Monday last, the 22d, to examine the body of the deceased; undertook to do so, and to analyse the contents of the stomach; was present during the whole of the time of the disinterment, and the taking out of the viscera in St. Augustine's Church-yard; received them from the hands of Dr. Riley and Mr. Kelson, the medical gentlemen employed; placed them separately in two basins, which had been carefully wiped clean by himself—the stomach and duodenum in one, and the intestinal canal in the other; the stomach was whole, there was no orifice, and no loss of any of its contents worth noticing; tied up the basins with their contents in a cloth, and gave them to a man to carry to the Medical School; never lost sight of him the whole way. The appearance of the body in the church-yard was such as to lead witness to believe that it had been under the influence of an antiseptic; the body was, generally speaking, rapidly passing to a state of animal soap, or adipocire; the stomach and intestinal canal were in an unusual state of preservation, so much so, in fact, that upon seeing the viscera opened, he exclaimed, "This looks like the effects of arsenic;" as it is a well-known fact that that poison has the effect of preserving the parts contiguous to it; and tends to assist the changing the other parts into adipocire. Upon receiving the parts, witness invited all those who were interested in the case to accompany him, as he intended to operate in public; the Solicitor, and three medical gentlemen employed by the accused, accompanied witness, with many others, to his own theatre, at the Medical School, where he put a new deal board on the lecturing table, and placed on it the stomach, which was still entire, with the exception of two small cuts which must have been made in taking it from the body; witness slit it open with the scissors, and found a great portion of it thickly covered with a yellow pasty matter, looking like wet clay; all the apparatus used by witness was either entirely new, or had been carefully cleaned by him previously. As he was strongly inclined to think this powder was sulphuret of arsenic, he proceeded to treat it as such; he separated a small portion of the yellow substance with the spatula, absorbed the moisture on blotting paper, and then dried it; witness mixed it with a certain proportion of carbonate of soda and charcoal, both well dried, and put the whole into a reducing tube, and immediately sublimed metallic arsenic; this metallic arsenic was made the subject of the other experiments; witness first heated it, allowing the air to enter the tube, and it became oxidized, and sublimed into a white crust; this formed the second test of the presence of arsenic. Witness then introduced two drops of water into the tube containing the white crust, and with heat dissolved it; these two drops were made the subjects of two experiments. Into one he put a minute portion of ammoniacal sulphate of copper, and immediately found the green precipitate of Scheele, or arsenite of copper; into the other drop he put a minute portion of the ammoniacal nitrate of silver, and the yellow precipitate of the arsenite of silver fell. He had thus four tests of the presence of arsenic; it only remained to be brought back to its original state by passing a stream of sulphuretted hydrogen through the arsenious acid; this he did, and obtained the beautiful yellow of the sulphuret of arsenic; he had gone through these experiments four different times, and all with the same results. He next attempted to discover what quantity of the yellow substance there was left in the stomach; there was nothing of any importance in the stomach besides; he inverted the stomach into water, and washed its internal surface; he allowed the yellow powder to subside, and filtered

the fluid so as to separate the yellow matter; in doing so he found that certain portion adhered to the internal surface of the stomach, and in two spots an infiltration had taken place into the substance of the stomach itself; the quantity collected could not be well separated from the filtering paper, on account of the animal matter; the nearest estimate by weighing, and counterpoising an equal sized piece of paper, gave seventeen grains as the weight of the substance and animal matter. To get rid of the animal matter he introduced (taking away four grains for the purpose of other experiments) the paper and its contents into a flask with nitric and muriatic acids, and boiled it till every thing was either decomposed or dissolved, except the fibres of the paper; and next filtered and extracted the whole of the fluid, and then precipitated the arsenic by means of sulphuretted hydrogen; the thirteen grains yielded witness four grains of sulphurate of arsenic. There are but two metals that will give the yellow precipitate with sulphuretted hydrogen; the one is cadmium, which is exceedingly rare, scarcely ever to be met with in this country; he had about half an ounce of it, which he should think is more than there is in all the kingdom besides; the other is the peroxide of tin, which is also scarce, and is not used at all as an article of commerce or medicine, and in this case could not possibly exist.—(Mr. H. then showed to the jury the matter which had been taken from the stomach, and which had produced the yellow precipitate, or sulphurate of arsenic; and also specimens in sealed tubes, of the action of all the other tests. The stomach itself was also exhibited, and the yellow spots were very apparent, and some of the yellow matter still adhered to its coats.)

By the Coroner.—He believed there is no well-authenticated case of how much sulphuret of arsenic will destroy life; the quantity will differ with the proportion of the materials used in manufacture; native orpiment is not so poisonous as the factitious; it is possible that it might have been swallowed in the form of white oxide, or arsenious acid; arsenic is in common called "white" or "yellow" arsenic, and would be sold by druggists under those names; white arsenic is chemically called arsenious acid, and yellow arsenic, sesqui-sulphuret of arsenic; they are both poisonous, but not equally so; white is the most poisonous; all compounds of arsenic are poisonous; the operation of each is nearly similar. He had never seen a stomach operated upon by arsenic before; should think the yellow spots were caused by the rapid operation of the arsenic suspended abruptly by death; if they had taken place after death, they would, in his opinion, have been as generally extended as the sulphuret itself; both sorts of arsenic are very cheap; he had not the slighest doubt of the nature of the poison found in the stomach; he could stake his existence on the fact of the presence of arsenic in the stomach and intestinal canal; connot say in what state the arsenic was taken: the process of decomposition sometimes produces sulphuretted hydrogen, which would convert white arsenic into orpiment; that found in the stomach is orpiment; cannot positively say in this case whether sulphuretted hydrogen had been produced, because adipocire was formed, and the decomposition of the body did not proceed as is usual; he was certain arsenic could not have been introduced after death, as the stomach was whole when it came into his possession; witness's attention was first arrested by seeing a small drop of yellow matter ooze from the stomach; the great quantity of yellow substance in the stomach struck him at once that he should find a mineral poison. He observed no bile in the stomach; there was nothing of importance in the stomach; if there had been bile he must have seen it; he was certain there was no bile.

Cross-examined by Mr. Payne.—Sulphuretted hydrogen might enter into the stomach from other parts of the body, although there was no orifice; he thinks the yellow spots were produced during life; he had not seen many stomachs that had received poison; he had frequently the contents of stomachs sent to him to analyse; in the stomachs he

had analysed he had never met with any arsenic; this is the first, and he hoped it would be the last; this matter in the paper and the tube are both from the stomach; it is the same as is sold in the shops for yellow arsenic; should think that the four grains he reserved, and what adhered to the coats of the stomach, with what he worked off, would yield five and a half or six grains of the pure sulphuret of arsenic from the stomach alone.

Mr. Kelson was then called, but stated that he was not aware that he could add any thing to Dr. Riley's evidence; it was so clear and ample.

Dr. J. A. Symonds, lecturer on Forensic Medicine at the Bristol Medical School, was present at the disinterment of the body of the deceased, and at the subsequent operations. His conviction was, that poison (sulphuret of arsenic) was in the stomach and intestines; he had never seen the body of a person who had died from arsenic before; the effects of an over-dose of arsenic would be extreme purging. Hahnemann, a German physician, states that two grains of white oxide of arsenic will destroy the life of an adult; the smallest quantity, in an actual well-authenticated case, is four grains; it is recorded by Zittman. Professor Christison, the first authority in this country, says four and a half grains have killed, and mentions the case. M. Guibourt, a French chemist, states the analysis of artificial orpiment to consist of ninety-four parts of arsenious acid and six of sulphur; this analysis is confirmed by Orfila; ordinarily a poisonous dose will operate in half or three-quarters of an hour; it varies with circumstances—it may operate much earlier.

[This was the whole of the medical evidence: we give the following extract from the testimony of the chief witness for the prosecution, as it serves to describe, in some measure, the symptoms attending the death of the deceased.]

Evidence regarding Symptoms.

Mary Allen, aged about sixteen, had been engaged to wait on Mrs. Smith. On the second night of her attendance the deceased was ill and drank a quantity of cold water. Mrs. Burdock came up, and asked how she felt herself, and if she would take gruel; to which deceased replied she was very poorly, but did not want any thing, and wished to be left alone. Mrs. Burdock added, "you had better take a drop of gruel; I will make you some, do you take it, there's a good soul." She then went down stairs, and in a quarter of an hour brought up some gruel in a very small half-pint blue basin; it was given to deceased in bed; her pains were dreadful, and she was very ill; the gruel was of a bad color—of a reddish appearance; the deceased drank about half of it, and then placed the basin in a chair, whence it was removed by Mrs. Burdock; deceased spit thick blood into the chamber utensil, but did not cough or make any complaint. On Mrs. Burdock asking deceased how she felt herself, she said "go along, and leave me alone." The former then turned round to witness and laughed, and sat down at the table near witness, on which she asked her if she had not better fetch a doctor? Mrs. Burdock whispered, "No, she won't have a doctor—what! have a doctor to kill her; no!" Deceased was very ill, rolling about the bed; but after a short time she became quiet, having lifted herself up, and struck her head against the head-board. Mrs. Burdock went towards the deceased saying, "well, I think she is going to sleep now; she is going to be quiet a bit; do you think I had better sit up or not?" Witness said she had better, and soon after went to the bed-side, and looked at the deceased, observing to Mrs. Burdock she thought she was asleep, and they would not disturb her. On again going to the bed-side, and placing the back of her hand to deceased's cheek, she exclaimed, "La! she is dead." Mrs. Burdock said, "La! come and sit down; don't make thyself a fool; if thee dost go there, she will grab hold of thee." Witness then lifted up a hand, and found that life was extinct: she called Mrs. Burdock to come and see if it were not the case,

who in ascertaining it to be so, exclaimed, "Lord, my God, she's dead! what shall I do to bury her?" The latter went down to inform her old servant, Mary Evans, of the fact, who answered, "Oh! she's dead is she?" Hot water was then prepared to wash the body, in laying out which witness assisted. * * * * Witness thinks deceased must have died between twelve and one at night, and at the time when it was observed she lay so quiet; as the corpse was cold on being laid out. Deceased lay down about five minutes after taking the gruel, and in half an hour was taken very ill; she was not sick at all, but spit blood.

CASE OF EXANTHEMA AND NARCOTISM, FROM THE EXTERNAL APPLICATION OF HOPS.

By John Badham, M. D.

Mary Bell, aged fourteen, and of a healthy habit of body, applied for advice, on the 26th of September last, for symptoms which although on the decline, appeared to me even then of a sufficiently interesting character to deserve being detailed in my case-book; and as I have not been able to find a case of the kind recorded by any authors, English or foreign, I shall be glad to hear whether any of your correspondents have in the course of their practice, met with a similar one. This little girl had been engaged in hop-picking for a week, during which she was in the enjoyment of perfect health.

On the morning of the 24th, there being a sharp frost at the time, her hands became chapped, and she put them into the hop-bin to warm them. Shortly after this she began to feel a tingling or smarting sensation in the hands, as if she had been stung by nettles; and having frequent occasion to pass her hands over her forehead, to arrange her hair, the face became similarly effected. In a few hours afterwards, a distinct cuticular efflorescence appeared, accompanied with a strong disposition to sleep. When taken home the feeling of somnolency was such as to require the constant vigilance of the family to keep her awake. Her vision was so much impaired that she could not distinguish between objects the most dissimilar; a plate of eels, for instance, appeared like mushrooms. Towards evening all efforts at rousing her attention failed, and she fell into a profound slumber. In the morning her face was covered with a deep erythema, and had swelled extensively; her eyes were quite closed by the tumefaction of the eyelids. She slept substantially through the whole of that day, but once or twice complained of pain in the forehead. Opening medicines were administered, but failed in procuring a stool. On the evening of this day the hands and face were literally covered with vesicles, some of considerable, some of lesser size, which continuing to grow larger, at length began to burst, first in the hands, then in the face. After this a considerable mitigation in all the symptoms took place; the face became reduced in size, and a healthy desquamation soon followed. The eyes, which had suffered from the attack, though less inflamed, were still red, on the fourth day, when she presented herself to me; and there was also an appearance of *small scales* on the face and forehead; elsewhere the desquamation was general; the erythema was dying away, but a thin ichorous discharge kept oozing from small abraded patches between the fingers. She still had headach, and appeared heavy, but was evidently convalescing without medicine: however, as her bowels were confined, I gave her saline purgatives, with the addition of a little nitre and sulphur, and ordered the hands to be dusted with some absorbent powder. These means, with the additional aid of a dose of calomel and colocinth, completed the cure which had already been commenced by nature.

The interest of this case appears to consist, first, in its appearing to prove the physiological fact of cutaneous absorption: and, secondly, because it discovers a new and hitherto unsuspected acrid principle in the hop.

Worksop, Notts, Oct. 1834.

HOSPITALS OF PARIS.

We copy, from that valuable periodical the London *Lancet*, an interesting account of the Hospitals of Paris. These Statistics will be read with great interest by medical men generally, as well as by the officers and guardians of similar public charities.

A connected view of the hospitals of Paris having long and often been demanded from us, we seize an opportunity of complying with the demand, and supply an hiatus which exists in this country in the statistics of foreign medicine.

The establishments for the relief of the sick and infirm at Paris may be distinguished into two kinds,—one consisting of the hospitals, properly so called; the other comprising what are denominated "hospices," or houses for the reception of infants, and of old people who are affected with diseases supposed to be incurable.

There are fourteen hospitals scattered in different parts of the city, and of these the most extensive, the oldest, and the most celebrated, is the *Hotel Dieu;* next in rank to the Hotel Dieu comes the *Hopital de la Charite*, in the rue Jacob; and then follow *La Pitie*, in the rue Copeau; *St. Louis*, rue St. Louis; the *Hopital des Enfans Malades*, and the *Hopital Necker*, situated next to one another in the rue de Sevres; the *Hopital St. Antoine*, rue du faubourg St. Antoine; the *Hopital Cochin*, rue du faubourg St. Jacques; the *Hopital Beaujon*, rue du faubourg St. Roule; the *Hopital des Veneriens*, sometimes called the *Hopital du Midi*, or the Capucins, rue des Capucins; the *Hopital des enfans Trouves;* the *Maison Royale de Sante*, rue du faubourg St. Denis; the *Maison d'Accouchement*, or *La Maternite;* and, finally, the *Clinical Hospital of the faculty*, Place de l'Ecole de Medecine, which has been opened within the last few weeks.

The *Hospices* are eight in number; the two chief are *Saltpetriere* and *Bicetre*, containing, one 5400 beds, the other above 3000. Besides these two immense establishments we have the *Hospice des Incurables Hommes;* the *Hospice des Incurables Femmes; L'Hospice des Menages; L'Hospice des Orphelins; L'Hospice de la Rochefoucault;* and *L'Institution de St. Perire.* Before entering on a description of each hospital in particular, we shall give a few statistical observations on these establishments in general, for most of which we are indebted to a work lately published by M. Milne Edwards.

The number of patients admitted into the civil hospitals of the city of Paris in 1807 was 37,473; in 1817 this number amounted to 41,000; and in 1827 it had reached the sum of 53,000; the average admittances for seven years between 1819 and 1825, was 47,166, giving a proportion of 1 to 48 of the whole inhabitants of the city.

The average duration of time which each patient remains in the hospitals is 35 days, and the mortality is as 1 to 8.37.

The expense of keeping up the hospitals and hospices, which is defrayed by a few legacies, but chiefly by taxes raised on the theatres, on the pawnbrokers' shops, &c., amounts to about 2,700,000 francs for the former, and 3,000,000 for the latter, or 1,080,000 and 1,200,000 pounds sterling; and each patient costs in the hospitals one franc fifteen sols, in the hospices one franc seventeen sols, per day.

The hospitals and hospices are under the exclusive direction of a committee called the "Council General of Hospitals," named, we believe, by the government, and at present composed of the Prefects of the Seine and the Police, the Dean of the Faculty, the President of the Chamber of Deputies, and five or six marquises, dukes, barons, and commoners. The executive part is entrusted to a "commission administrative," and each principal hospital has an agent *de surveillance*, who lives in the establishment, and who directs all the interior concerns, the police, expenses, &c. The surgeons and physicians of the hospitals are appointed by the Minister of the Interior, on the recommendation of the Council General, who send in to him a list of three names, usually selected from the medical officers of the *Bureau Central.* However, from a late incident it would appear

that the Council General assumes the nomination, and only refers to the Minister on special occasions. To fill the office of head physician the candidate must be at least fifty years of age, and have been employed during ten years in the civil or military hospitals; for physician it requires forty years of age, and twelve years of doctorate. The pupils attached to the hospitals are distinguished into *internes* and *externes*.

The *internes* have the charge of the patient during the absence of the medical men. They are bound to make the evening visit, administer any pressing assistance which may be required on the moment, keep an account of the cases, &c. The *internes* are appointed by concours, from candidates of all nations. Their office lasts generally for four years. They are lodged, and have about 20*l.* per annum, fire, &c.

The *externes* are also chosen by concours. Their duty is to aid and supply the internes. Besides this, each medical officer is attended, during his visit, by an *eleve en pharmacie*, who acts as apothecary. And in the four hospitals where the cliniques of the faculty are given, there is a *chef de clinique*, whose duty it is to collect observations, and make the autopsies, &c., for the professor. They are appointed by the dean, and have 20*l.* per annum, with lodging. Finally, the duty of nurses is performed by the *sœurs hospitaliers*, better known as Sisters of Charity. There is about one to every five or six patients.

Patients, desirous of being admitted into the hospitals, must address themselves to a committee, who sit near the *Hotel Dieu*. This, the *bureau central*, is composed of twelve physicians and six surgeons, all chosen by concours. They examine the patients, and give them tickets of admission to their special hospitals; but in any case of emergency the patient is admitted by the agent de surveillance on the advice of the interne.

Hotel Dieu.

This is the largest and most ancient of the Parisian hospitals. The two immense ranges of building which compose it, are erected, one on each side of the bank of the river Seine, and are connected together by a covered wooden bridge. The great mortality which formerly prevailed in this hospital was attributed to its unfavorable situation; but other causes, of a different nature, which are now happily removed, contributed in a much greater degree to this result. As late as the middle of the last century, the patients were crowded together, without any distinction of disease, or any regard for the consequences which invariably arise when sufficient space is not allowed for a free circulation of fresh air through the wards. At that time the hospital was surrounded by houses; the number of beds was double what it is at present: patients affected with contagious diseases and mental alienation, the old and infirm, lying-in women, in short, those laboring under every possible disease, were indiscriminately admitted, and crowded together, four in each bed, and on some occasions six, or even more.

But these and many other abuses have been long since removed; and the Hotel Dieu is now not only the hospital where the patients are best treated, but one of the most healthy in the capital.

The number of beds amounts to a little more than 1000; and the service of the hospital is administered by three surgeons, ten physicians, nineteen internes, and eighty-four externes and eleves en pharmacie. In the year 1833, the number of patients admitted were 16,992, of whom 1783 died, giving a mortality of 1 to 9.5. Adynamic fevers and hospital gangrene, once so frequent, are now rarely seen; but inflammations of the internal viscera are very frequent after surgical operations. For the last fifteen years the body of every patient who died in the hospital has been carefully examined; and the adipose, have clearly shown this remarkable circumstance, that the greater number of those cut off during the after-treatment of surgical disease, fell victims to an inflammation of the chest, abdomen, or some other internal viscus; hence general and local

bleeding, refrigerants, counter-irritants, &c., are generally used; while, for nearly 3000 patients, not more than a pound of bark internally, and a few pounds externally, are consumed during the course of the year.

The surgeons of the *Hotel Dieu* are MM. Dupuytren, Breschet, and Sanson, who divide between them about 224 beds. It is unnecessary for us to say any thing of the first, who is already sufficiently known as one of the most distinguished surgeons in Europe. Before his late illness, M. Dupuytren used to lecture five times a week, and spend at least four or five hours per day in the hospital; his methods of treating artificial anus, spots in the cornea, gangrena senilis, &c., are familiar to every one.

During the year 1822, 280 cases of fracture were treated in the hospital, almost all by simple position of the limb; and fractures of the neck of the femur and humerus, exclusively in this manner. During the same year there were one hundred and eleven amputations of limbs or tumors; sixty-two operations for cataract; thirty-three for strangulated hernia, and eight for stone. The amputations are generally made with the circular flap; the cases of hernia are operated on at a very early period, and the operation of depression is the favorite one for cataract. The operation for the stone succeeds, according to M. Dupuytren's account, in five-sixths of the cases; for hernia, in three-fifths; for cataract, in seven-eights: and that for fistular lacrhymalis, by the introduction of a canula of gold or platinum, in nineteen-twentieths.

M. Breschet, the second surgeon, is also well known by his works on comparative and pathological anatomy; he has lately introduced a new method of treating varicocele by compression: the good effects of which may be daily seen in his wards.

M. Sanson, in addition to his clinical lectures, has also established, at the hospital, a clinique for diseases of the eye.

The medical service comprises ten physicians, who have between them seven hundred and seventy-six beds: the number of patients in the medical wards amounts to about nine thousand per annum; and the mortality is as one to thirteen. Of the physicians, we can only mention M. Chomel (who delivers an excellent clinique three times a week and who is favorably known by his works on general pathology and typhus fever), M. Magendie and M. Recamier; the latter practitioner employs, with much success, compression, in the treatment of cancerous affections, and is a strong advocate for cold affusion in cases of fever. Besides the clinique of M. Chomel, which he delivers as professor to the School of Medicine, MM. Piorry and Trousseau lecture three times a week on the patients confided to their care.

Hopital de la Pitie.

This hospital, situated close to the Garden of Plants, is composed of several ranges of buildings, enclosing large airy courts, in which the convalescents enjoy the benefit of exercise. It was opened in the year 1809, as an appendix to the *Hotel Dieu*, but rapidly rose in importance; and has, by the talents of its surgeon-in-chief, gained the reputation of being one of the best which a student can attend.

The number of beds is six hundred and twenty-four, and about 8400 patients are annually treated. The surgeons are MM. Lisfranc and Velpeau. The former, better known by what he has done than what he has written, has the merit of having, as it were, created in Paris the School of Operative Surgery, and of having made improvements of great value in most of the operative processes employed. M. Lisfranc delivers clinical lectures every day in the week, and every now and then treats of diseases of the uterus, a subject upon which he has conceived some ingenious ideas. He was in the habit of introducing the speculum once a week into all his female patients, and showing the state of the os uteri to the numerous pupils who follow his visit.

The junior surgeon, M. Velpeau, now clinical professor to the faculty, lectures every day also at half-past seven o'clock in the morning.

The physicians attached to the hospital of La Pitie are, Messrs. Serres, Andral, Louis, Clement, and Parent-Duchatelet, most of them distinguished men. M. Serres has made a name for himself by his works on the pathology and anatomy of the nervous system, and by his discoveries in transcendant anatomy; he is about (we hear) to publish a complete work on the pathological anatomy of the nervous system.

M. Andral, professor of internal pathology to the faculty, if not the most brilliant of professors, is certainly one of the most distinguished physicians in Europe, few of whom can cope with him in a knowledge of pathological anatomy, and especially in the art of forming a correct diagnosis of disease. The clinical productions of M. Andral are well known to most of our readers. Indeed, we have nothing in English literature which can be compared with them, if we except the similar production of Dr. Abercrombie, whose treatise on diseases of the brain, &c., even the French themselves allow to equal M. Andral's last volume.

The practice of M. Andral in the Hopital la Pitie always affords something replete with interest. He has already made an extensive range of experiments with the contra-stimulant, and has just terminated a similar essay with purgative medicines, the result of which we may probably, at a future period, make public.

M. Louis is the favorite professor of the English and Americans, of whom indeed his class is almost exclusively composed. He is reputed to be the physician best versed in diseases of the chest, which he has made his special study; he delivers clinical lectures during the spring and summer months.

Of MM. Parent-Duchatelet and Clement, we know nothing particular. The former has published some excellent papers on public hygeine and legal medicine.

Hopital de la Charite.

This hospital, situated in the rue Jacob, on the left bank of the Seine, but not close to the river, like the Hotel Dieu, was founded in 1607. It contains nearly five hundred beds; the average number of patients treated is from five to six thousand, and the mortality amounts to about fourteen for each one hundred patients.

The surgeons of La Charite are M. Roux and M. Guerbois, a military surgeon, who has been lately appointed to the vacancy left by the death of Boyer.

M. Roux, one of the professors of clinical surgery to the faculty, is considered one of the best operators in the French capital, though, from some reason or other, his patients generally die. We cannot say from experience that the after treatment of M. Roux is decidedly bad, but he operates on many patients who have been considered unfit by Baron Dupuytren at the Hotel Dieu. M. Roux prefers the method of continued extension to that of position in cases of fracture as employed at the Hotel Dieu, and he invariably extracts the cataract; he is peculiarly famous for the dexterity with which he performs this latter operation; indeed we saw him extract nineteen lenses at one sitting, and left the amphitheatre when six more cases remained for operation. M. Roux has improved surgery by his methods of uniting the divided palate and ruptured perineum. In the first of these operations, which he has performed now sixty-four times, he has been peculiarly fortunate. We have said that operations are much more frequent at La Charite than at the Hotel Dieu, considering the number of patients. Thus, in the year 1822, when the number of surgical cases amounted only to eight hundred, there were,—amputations, forty-four; cataracts, forty-three; fistula in ano, thirty-two; strangulated hernia, fourteen; lithotomy, fourteen.

The physicians of La Charite are, MM. Fouquier, Lerminier, Rullier, and Rayer. M. Fou-

quier, one of the clinical professors of medicine to the faculty though little known by his writings, enjoys a high practical reputation; unlike the other professors, he gives his clinique at the bed-side of the patient. Though, in some measure, a believer in the Broussain doctrines, M. Fouquier teaches the existence of essential fevers; he was one of the first to try and recommend the use of nux vomica in paralysis, and he has also made some interesting experiments on the action of urea on the urinary system.

M. Rayer, author of a work on diseases of the skin, is about to produce a new work on the same subject, accompanied by a series of plates, illustrating the whole of these diseases.

Hopital St. Louis.

This hospital, situated at the extremity of the faubourg du Temple, was founded under Henri IV. It is destined exclusively to the reception of patients affected with skin diseases, scrofula, and rheumatism. The number of patients admitted during the year is about 6000; but, in addition, there is a kind of dispensary attached to the hospital, where external patients receive advice, medicine, and tickets for baths and fumigations. The treatment of tinea is exclusively confided here, as in the other hospitals of Paris, to the brothers Mahon, and the number of external patients affected with the disease amounts yearly to 8000. The hospital contains seventy-two baths, fifteen large apparatuses for fumigating, and a large chamber containing vapor-baths, &c. The main part of the treatment at this hospital consists in the administration of baths, and fumigation with various substances: thus, during the year 1833, there were given to the house patients, baths, 5141; fumigations, 8882; douches, 4515. Total, 18,539. For the dispensary patients, baths, 43,760; fumigations, 37,118; douches, 1726. Total, 82,604.

The mortality of this hospital is naturally feeble, being about one in sixteen. The average duration of treatment is sixty days.

The surgical part contains one hundred and eighty-six beds distributed between M. Richerand, author of the physiology; M. Jobert, and M. Gerdy, who was lately elected by concours as professor of surgical pathology. The physicians are, MM. Emery, Alibert, Lugol, Biett, and Manry.

The head physician, M. Alibert, professor of materia medica to the faculty, has a ward of sixty-five beds, containing the female patients. During summer he lectures on diseases of the skin every Wednesday at ten o'clock, and shows a great variety of most interesting cases. His magnificent plates on skin diseases are well known to every one, but, unfortunately, are too dear for most pupils.

M. Lugol has eighty-two beds, containing the scrofulous patients, where his peculiar treatment may be observed.

M. Biett also gives a clinique on skin diseases: he has the male patients, amounting to one hundred and twelve.

Hopital St. Antoine.

This establishment, situated in a remote and poor neighborhood, is but little frequented for instruction. It contains two hundred and sixty-two beds. The surgeon is M. Berard, Professor of Physiology to the faculty. The physicians are, MM. Kapeler, Gueyrard, and Mailly.

Hopital Beaujon.

This small hospital contains one hundred and sixty-six beds. The physicians are MM. Renaudin and Martin-Solon. The surgeons are MM. Marjolin and Blandin. The number of patients affected with colica pictonum received into this hospital is usually very great, on account of its neighborhood to the extensive white-lead manufacture at Clichy.

Its treatment is perfectly opposite to that employed at *La Charite*, and is called "the method la charite." M. Martin-Solon commences with a purgative, composed of Jal. 12 gr. Sulph. Sodæ ʒiv ; Mannæ ʒi : in the evening a purgative lavement, and an hour after, an ounce of the syrup of diacodium. The same medicines are repeated the next day, and the treatment generally effects a cure in five or six days.

Hopital Cochin.

A small hospital in the rue St. Jacques, containing one hundred and five beds. The physicians are MM. Gendrin and Jadioux. The surgeon is M. Boyer, son, we believe, of the late Baron.

Hopital Necker.

Founded in 1779, by Madame Necker, contains one hundred and twenty-four beds. The medical service is confided to MM. Bricheteau and Delaroque : the surgeon is M. Laugier. The administration general have given M. Civiale a ward in which calculous patients are exclusively treated by the method of lithotrity, for if we are to believe not only what is reported but written, the administration have been compelled to forbid M. Civiale to practise the operation of lithotomy, he has been so unsuccessful. According to the statements of M. Civiale, the success attending lithotrity by the method of brayement employed at this hospital has been very great ; but as his statements have not been confirmed in the report made by MM. Larrey and Double, we refrain from repeating them here.

Hopital des Enfans Malades.

Before the year 1802, the sick children were mixed in the different hospitals with adult patients ; since that period, the council-general has appropriated a special establishment for the treatment of patients below the age of sixteen years. The Hopital des Enfans malades, situated in a healthy faubourg, at the end of the rue de Sevres, is composed of four parallel ranges of building, inclosing a large square, which is laid out as a garden. It contains five hundred and sixty beds ; four hundred and ninety-one for the medical and sixty-nine for the surgical patients. The number of children annually received into this hospital, averages about 2500, and care is taken to separate those affected with contagious diseases from the other patients ; at least, the children affected with scabies are placed in a separate building ; but those laboring under small-pox, measles, and scarlatina, are not isolated. We believe the experiment of placing the small-pox patients in a separate ward was tried for some years, but the mortality of the disease was found to be considerably augmented by this precaution. Indeed the general mortality in the hospital is great, and may be averaged at one for 4.50. In cases of small-pox, the deaths are to the cures as one to 2.15, and in measles as one to between three and four : and the mortality in acute internal diseases as one to 3.42. Thus in the year 1822, there were received 2611 patients who may be arranged under the following heads, viz.

Boys.—*Acute diseases.*—Medical affections, 819 ; Surgical ditto, 209 ; Small-pox, 51 ; *Chronic.*—Scrofula, 51 ; Tinea, 46 ; Scabies, 304 ;

Girls.—*Acute.*—Medical, 777 ; Surgical, 87 ; Small-pox, 42 ; *Chronic.*—Scrofula, 16 ; Tinea, 56 ; Scabies, 153 ;

Of these, 709 patients died within a period varying from twenty-four hours to two years. For the itch, the period of cure varies from twenty-one to sixty-nine days ; for tinea, the average time is one hundred and fifty-six ; and for scrofula, two hundred and eighty eight days. The physicians of the Enfans Malades are MM. Jadelot, Guersent, and Baudelocque ; the surgeon is M. Baffos.

The boys, girls, and scrofulous patients of both sexes, are severally placed in a different part of the building, and each physician has the charge of advising for four months in the year, after which he passes to another.

The treatment pursued at the Hopital des Enfans Malades is of a very simple kind, and except in acute inflammations of some of the great viscera or their lining membranes, active remedients are very seldom had recourse to. The writer has been in constant attendance on the practice of MM. Guersent and Baudelocque for the space of two years, and has seldom or never seen any thing like an active purgative medicine administered. Calomel, the great favorite of many English practitioners, is rarely given, except in acute inflammation of the cerebral meninges, or croup, and then with very little confidence in its efficacy. Every patient who dies in this hospital is carefully examined after death; hence, the precise nature of the disease is in most cases ascertained, and we must confess that a great majority of the post-mortem examinations confirm the opinion entertained by the physicians, viz. that two-thirds of the children who die, are cut off by inflammation (generally chronic) of the chest or abdomen. Hence the expectant mothod, as we would call it; leechings with the use of revulsives, and strict attention to the bowels are more in vogue than the repeated purging which we have seen employed in England. Perhaps hospital may differ essentially from private practice, and the forms of disease which prevail where many individuals are assembled together, may vary from those seen in isolated cases: however this may be, we are certain, from extensive observation, confirmed by a multitude of autopsies, that in numerous cases which in England would he called atrophia, indigestion, diarrhœa, worms, &c., or any other name expressing rather the theory of a school than the diagnosis of a physician, the original cause of the disease resides in a chronic inflammation or ulceration of the intestinal canal. In cases of small-pox and measles, two thirds of the children who die (at least in hospitals) are cut off by inflammation of the respiratory organs; hence the medical officers of this hospital are peculiarly careful to examine the state of the lungs in patients laboring under the above-mentioned diseases, and apply themselves to combat the inflammatory affection, the symptoms of which are often very obscure, with energy and perseverance. We have seen M. Baudelocque employ the white oxide of antimony with considerable success in cases where the reduced state of the little patient would have rendered any abstraction of blood hazardous.

Although the Hopital des Enfans Malades affords the finest opportunity in Europe for the study of diseases of children, it is curious that it has not as yet given rise to the production of any complete system or work on those diseases. Billiard was a pupil of the Enfans Trouves, and his work, imperfect as it is, in the therapeutical part, is confined to the affections of children below two years of age. M. Guersent, from whose immense experience we should have a right to expect a complete work, enjoys, we fear, too extensive a practice to permit him to write; he has, however, produced various articles, in the Dictionary of twenty-one volumes, which merit the attention of every medical man.

M. Baudelocque has also taken advantage of the opportunities afforded in the scrofulous wards. By a long series of experiments, he has determined the comparative merits of all those medicines called anti-scrofulous, and if he has not succeeded in completely unveiling the nature of scrofula, he has at least the merit of having demonstrated the circumstances under which it is developed.

Hopital des Veneriens

This hospital, otherwise called Hopital du Midi, or Des Capucins, because the house formerly belonged to the Capucin friars, was appropriated, under the reign of Louis XVI, to the treatment of venereal diseases. Before that period, nothing could exceed the state of the unfortunate wretches who labored under the effects of syphilis in this the most civilized and most advanced of European capitals. Previous to the year 1785 the syphi-

litic patients were received into the Hotel Dieu, Salpetriere, and Bicetre; in this latter hospital, twenty or twenty-five beds were distributed among 200 patients; one half of this number were compelled to sleep four in a bed, from eight in the evening to one at night; the other half from one o'clock to seven in the morning. The patients had often to wait six, nine, or even twelve months in the wards, before any treatment was administered, and, to crown all, while the court revelled in unbounded licentiousness, the unfortunate wretches, who merely followed the example of their king, could not be received into this pig-sty, according to the express enactments of the administration, without being whipped (fustiges) before and after their treatment.

At its origin, the Venereal Hospital was confined to the reception of new-born children laboring under syphilis; these were suckled by nurses affected with the same disease, to whom mercury was administered. After the year 1785, the patients from Bicetre were received, and since then the hospital has been gradually enlarged. In 1822, the number of beds amounted to 612, and about 3500 patients are now annually admitted. Within the last few months, however, a change has taken place, and the female patients are for the future to be treated in a distinct hospital.

Mercury, in its various preparations, forms the basis of treatment employed; but the form almost universally preferred, is Van Sweiten's liquor (a solution of corrosive sublimate); in many cases mercurial frictions are substituted. When secondary symptoms come on and are rebellious, the tisan of Feltz is employed by M. Cullerier with great success; this is composed in the following manner:—*Sarsaparilla* ℥ij; *Isinglass* ℥ss; *Crude Antimony powdered* ℥viii; *Water* lb xii. This is boiled down to one half, and the patient takes two pints of the decoction during the day. The Surgeons of this hospital are MM. Cullerier and Ricord.

Hopital des Enfans Trouves.

This establishment was founded for the reception of all children (up to the age of two years) who are abandoned by their parents. The infants who appear to be healthy are immediately sent off to the country, where they are nursed: the others are placed in the hospital. The latter contains two hundred beds, or more properly speaking cradles, viz. one hundred for the healthy children, twenty for those who are weaned, and eighty for the sick: besides these there are one hundred and twenty beds occupied by the nurses.

When we reflect that there are nearly three thousand students in medicine, and more than three thousand students in law, in the vicinity of this hospital, and that more than the moiety of this number have mistresses, without any means, or even inclination, to support the fruit of what is called "love" in the quartier Latin, we can readily imagine that a foundling hospital does not want for candidates; in fact the number received yearly is five thousand, and in 1828 reached as high as five thousand six hundred. The mortality amongst the infants at the *Enfans Trouves* is excessive, and the diseases which are most fatal are, hardening of the cellular tissue (*sclerema* skin-bound) and *muguet*. A statistical view of four years, from 1808 to 1811 inclusive, gives the following particulars:—

Eighteen thousand five hundred children were received into the establishment; and of these two thousand two hundred and forty eight were sent to the hospital, viz.

Seven hundred and five whose lives were in extreme danger, from feebleness, &c.; dead six hundred and thirty one, cured seventy-four.

Six hundred and forty-five affected with induration of the cellular tissues; dead five hundred and seven, cured seventy-eight.

One hundred and sixteen affected with aphthæ, &c.; dead ninety-two, cured twenty-four.

Four hundred and thirty-three cases of ophthalmia, itch, pustules, &c.; dead one hundred and nineteen, cured one hundred and fifty-three; one hundred and sixty-one transferred to the venereal hospital.

Two hundred and five cases of icterus and diarrhœa; dead one hundred and fifty-four, cured fifty-one.

Forty-seven cases of convulsions; dead thirty-four, cured thirteen.

Forty-six cases of tumors of various natures; dead thirty-two, cured fourteen.

Eleven cases of fracture; dead five, cured six.

Twenty-two cases of deformity; dead eighteen, sent to the country four.

Nineteen cases of hydrocephalus or spina bifida; dead eighteen, sent to the country one.

Thus of two thousand two hundred and forty-eight patients, we have one thousand six hundred and sixty-nine deaths, and four hundred and eighteen cures, or a proportion of the former to the latter as four to one. Besides, this enormous mortality takes place in a very short space of time, for during the four years of which we have spoken, the average sojourn of each patient in the hospital was only nine days and a half.

The physicians are MM. Baron and P. Dubois; the surgeons are MM. Thevenot and Auvity.

Maison D'Accouchements, otherwise called Hospice de la Maternite.

Before the accession of Bonaparte to the throne of the empire, pregnant women were received into the *Hotel Dieu*, where they were crowded, for want of sufficient space, three or even four in the same bed. The consequence was, a mortality of one in every thirteen women delivered. To remedy this evil a separate establishment was erected for the reception of women who have reached the eighth month of pregnancy, or who are in imminent danger of being put to bed at any period. No stranger is admitted into the wards where they lie, and they are not even compelled to give in their names or places of abode. The number of beds in the Maternite is four hundred and thirty-three, viz. one hundred and fifty for the women who attend at the moment of labor; two hundred for those already delivered; twenty-five for the children; eight for the nurses; and one hundred and fifty for the sages-femmes, the only pupils who are here admitted.

The average length of time during which the women remain in the hospital after delivery is about eight days. During ten years, from 1804 to 1813 inclusive, the number of patients received was nineteen thousand, and the mortality one to twenty-two deliveries. The number of twin cases was about nineteen per annum; and in the nineteen thousand births, only two cases of triplets occurred. Since 1813, the number of receptions has considerably increased; thus, in 1822, the number amounted to two thousand eight hundred; and in 1828, to three thousand four hundred. Of two thousand seven hundred women delived in 1814, two thousand four hundred declared themselves not married, and nearly all abandoned their children.

Cliniques de la Faculte.

This is a small hospital, which has been erected this year, immediately opposite the School of Medicine. It contains about one hundred and twenty beds, and is exclusively destined for clinical instruction. The physicians are MM. Rostan and Dubois, professors of medical pathology and midwifery to the school; and M. J. Cloquet, one of the professors of clinical surgery. It also serves for the examination of the students of the fourth year, who are brought to the bed-side of the patient, and there undergo a truly

practical *epreuve*, being compelled to form a diagnosis, and to answer all questions that may be addressed to them on the state of the patient. As the hospital, as yet, contains only some ten or a dozen of patients, we shall abstain from any further particulars until a period of full activity arrives.

Hospice de la Salpetriere.

This immense establishment, which was founded by Louis XIV for the reception of the beggars, is now a house of refuge for indigent females above seventy years of age, and also a hospital for those affected with mental alienation, and cancerous diseases accounted incurable in the other hospitals. It contains no less than five thousand beds for the poor superannuated females, and four hundred for the sick. These latter are confined to the care of MM. Piorry and Cruveilhier. M. Cruveilhier has one hundred and forty-eight beds. The diseases most frequently seen in his wards are, chronic catarrh, diseases of the heart, and paralysis. He is present at every autopsy which is made, and it is in this hospital that he finds the elements of his splendid productions in pathological anatomy. M. Cruveilhier has also the care of the incurable cancerous patients, amounting to about two hundred. M. Piorry has a service analogous to that of the preceding physician; and used to attract a number of followers by his remarks on auscultation and percussion. The epileptic patients, to the number of four hundred, are under the care of M. Petit. The remedies which he employs most constantly are baths and douches, general and local bleeding, valerian, and antispasmodics.

Thirty-six surgical beds were under the care of M. Lallement, who has died within the last few weeks.

The deranged patients are committed to MM. Pariset and Mitivie, and the fools to M. Falret. The number amounts to about one thousand and sixty, and the average of admissions to five hundred per annum, of whom two hundred die, and three hundred are cured,—a very high proportion of the latter, if we reflect on their vast age, and that many have only recourse to the hospital as a last resource, when they have been pronounced incurable elsewhere.

The prevailing feature of the treatment in this portion of the hospital is extreme gentleness; and violent measures are never had recourse to under any circumstances. Isolation and moral impressions are the main remedies trusted: these are seconded by baths, mild purgatives, and means proper to recal the evacuations, which in many of the cases are suppressed.

Bicetre.

This hospital, analogous to *Salpetriere*, is destined for indigent or deranged old men. The number of beds amounts to three thousand. The physicians of this establishment are, MM. Ferrus, Rochaux, and Prus; the surgeon is M. Murat. The diseases and affections most common are, paralysis, chronic bronchitis, rheumatism, cataract, and contused wounds. This latter circumstance is only to be accounted for by the existence of a canteen in the hospital, at which the old gentlemen daily get drunk. Notwithstanding the most pressing efforts of the medical men for its suppression, the administration has not yet assented, merely because the sale of the brandy brings in eighteen thousand francs per annum.

There is a division of incurable cancerous patients, amounting to seventy-six. The general mortality is one in 6.86, or, amongst the indigent, one in seven; deranged patients, one in six; epileptic, one in eleven; and cancerous, one in seven.

Those affected with mental alienation are under the care of MM. Ferrus and Leuret, the former of whom gives most interesting lectures on his special subject. By their

activity, all the improvements projected by Pinel have been executed, and *Bicetre* has now become a model of establishments for the alienated. The treatment resembles that pursued at *Salpetriere*; but *Bicetre* possesses the advantage of having attached to it a farm, upon which sixty of the deranged patients daily work.—P. H. G.

CLINICAL LECTURE ON FRACTURE OF THE PATELLA.

By Baron Dupuytren.

From the "Lecons Orales," published periodically, under the Baron's inspection.

Fractures of the patella present several points of interest to our examination, regarding which authors are not agreed: such in particular, are the mechanism by which they are produced, the method of treatment, or the apparatus which is most applicable, the manner in which the callus is formed, and above all, the possibility of effecting an union of the fragments without any intervening medium.

Six patients, with fractures of this kind, have been recently treated in the Hotel Dieu: all presented a transverse solution of continuity; five were perfectly cured, without the slightest deformity remaining, the use of the limb having been entirely restored. One is still under treatment. In this last, the fracture was the result of a fall upon the left knee, with a good deal of swelling, caused by extravasation of blood into the soft parts and into the joint. Nevertheless, there was no difficulty in recognizing the nature of the injury. The finger run along the patella encountered a considerable depression where the bone was separated into two portions—one above, the other below. They could be moved in opposite directions, and approximated by the extension of the limb, while crepitation was produced by their friction. Notwithstanding the severe complication of the fracture, the patient has rapidly advanced towards recovery. But that happened which M. Dupuytren has often observed in other cases; the bandage intended to keep the fragments in apposition, only acting upon the skin, forced this between edges of the bones, thus keeping them apart. It was necessary, therefore, to re-adjust the dressings.

Transverse Fractures.—Fracture of the patella may be produced in two different ways—by force applied directly to the knee in front, or by violent exertion of the extensor muscles of the limb. However, it has sometimes taken place without the muscular exertion having been very great; as, for instance, in the act of leaping, kicking, or the effort of avoiding to fall backwards. In all these circumstances, the patella is only supported by one part of its posterior surface against the anterior face of the femoral condyles; at the same time that the limb being half bent, the inferior ligament and the extensor tendons drag the extremities of the bones strongly backwards. During the effort which then takes place, the femur serves as a point *d'appui* to the forces acting upon the patella above and below, the continuity of which gives way from without inwards.

[We beg to refer our readers to a very instructive lecture on Fractures of the Patella, by Sir Charles Bell, contained in our first volume. The point above discussed by M. Dupuytren is placed in so clear a light, that we shall insert it here.

"This kind of fracture of the patella is most frequently caused by the person stumbling, and then making a violent effort to recover his balance. He suddenly brings the quadriceps extensor into powerful exertion, and the force of this muscle may be imagined, when we consider that it is capable of throwing up the whole body as in a leap: it is this muscle, too, which straightens and then fixes the limb, when we rise up under a heavy load placed upon the shoulders. We can therefore imagine, that in making a violent convulsive effort, when the body is thrown off its centre of gravity, this muscle may act with force sufficient to rend the patella asunder. But there is another circumstance which renders the liability to fracture greater; there is a certain degree of flexion of the

knee-joint, during which the patella is more easily broken. About the middle stage between extreme flexion and extension of the limb, the patella rests with its upper half upon the convex surface of the femur, while that part of the bone to which the ligament of the patella is attached, projects without support over the space left between the separating surfaces of the femur and tibia. If the knee joint be further bent, and the quadriceps muscle be in a state of spasmodic contraction, thus retaining the patella fixed upon the end of the femur,—and if the ligament of the patella be acting in an angular direction upon the projecting part, the bone is then snapped, as if were a stick broken across the knee."]

A great number of these fractures have been improperly attributed to falls upon the knee. It has escaped observation, that under such circumstances the weight of the body strikes almost exclusively on the projecting part of the tibia, which receives the ligament of the patella; by the flexion of the limb to a right angle, this projection of the bone comes first to the ground and receives the entire shock, whilst the patella can only touch at its lower extremity. Falls on the knee are often the result, not the cause, of fracture of the patella; it is because this is broken that the individual falls, not in consequence of his falling that this is broken.

Cutting or bruising instruments, directed against the knee, may break the patella into fragments. This accident may also happen from a fall, if the leg be powerfully bent, and if the bone strike violently against inequalities of the ground; but even in this case the action of the muscles has much to do in producing the fracture.

As I have above pointed out, there are perceptible differences between the fracture of the patella produced by muscular efforts and those caused by direct blows upon the knee. The former are rarely complicated with contusion, laceration of the soft parts of the joints, unless the patient fall roughly after the fracture has taken place; the latter on the contrary, are often accompanied by extensive injury of the surrounding tissues—sometimes the patella is, as it were, shattered and reduced to a number of fragments, which are separated in every direction, while the capsular ligament is torn, and hæmorrhage takes place into it. These complications render the consequences of the injury very formidable. Here is an example:—

Examination of a Limb some time after Fracture of the Patella.—A patient, advanced in years, affected with a fracture of the patella, without much separation of the fragments, but accompanied by various untoward complications, died last November, after a considerable time with symptoms of mischief in the head and abdomen. At first sight the fracture was scarcely to be distinguished; the patella was movable; a furrow, formed by the separation, was imperceptible to the eye, but sensible to the finger; this being carried from above downwards encountered a gutter, which was easily followed. The joint being opened, appeared internally of a deep red, and filled with a certain quantity of sanguineous and purulent matter; there had therefore existed inflammation, terminating in effusion. This mischief in the joint sufficiently accounts for the symptoms under which the patient sunk. The inner surface of the patella exhibited a transverse groove, but higher up than on the external surface. The bone had therefore been broken from below upwards, and from before backwards. The fragments were intimately united, nothing being interposed between them. The limb was carefully examined.

On the preservation or destruction of the fibrous layer which covers the patella depends the facility or otherwise with which the fragments are maintained in their proper places, and also the solidity of the parts after the cure. In fact this fibrous layer forms a kind of bandage, which retains the fragments opposing their immoderate separation, and serves as a basis for the material which, at a later period, is to effect their union. It may thus be seen with what attention it is necessary to manage it and to avoid those consider-

able movements which are often had recourse to by the surgeon, with a view of ascertaining whether a fracture has taken place.

Vertical Fractures.—The vertical fractures are less common than the others, yet such cases are not very rare, although we find little about them in modern treatises on surgery.

The oldest example (the only one, perhaps, which has been described with great precision) is to be found in the work of La Motte. The fracture was the result of a fall from an elevated situation; the two portions of the bone were slightly separated from each other although the limb was half bent. It was placed in complete extension; the knee surrounded by compresses, and moderately tight bandaging. Consolidation was complete in twenty days, and the limb soon regained its usual strength, the callus being but little apparent.

Cases of Vertical Fracture.—About twenty years ago, I admitted into the Hotel Dieu a middle-aged man, who had broken several bones in consequence of falling from a height. His knee was prodigiously bruised and swollen. He died the third day after the accident. On examining the limb, a longitudinal fracture of the patella was discovered; the bone was divided into two nearly equal fragments; the parts of the bone were mobile, and admitted easily of being displaced; the capsular ligament contained a large quantity of sanguineous fluid. Six months had scarcely elapsed when another man was brought to the Hotel Dieu; he was drunk, and had been knocked down by a carriage. On the knee and thigh were to be seen the mark of the iron which binds the wheel. It had passed from above downwards over the limb, and the patella was divided in the same direction. Crepitation of the fragments was perceived on examining the limb, and the parts were afterwards retained in position by appropriate bandaging. The cure was going on favorably, when the patient was seized, without any obvious cause, with peripneumony, which carried him off on the twentieth day after the accident. The parts were examined with much care, and a well-formed callus was found, which united the fragments, allowing of but very little motion, and every thing announced a rapid recovery. Three years after, a man came to the Hotel Dieu to be treated for varix of one of his legs. In examining the limb, I perceived that the patella was universally broad, with a vertical projection. Nothing of the same kind was seen on the other side. On questioning him as to the cause of this deformity, the patient said that some years before, he had fallen and broken the leg and thigh in several places. The patella had shared in the mischief, and the augmentation of its size proved that the callus had acquired a considerable development. The movements of this bone were easy so long as the extensor muscles were relaxed, but at other times the friction of a considerable irregularity against the condyles of the femur was evident. It appeared that the fracture had been vertical, and that this irregular consolidation had been the result of the unaided efforts of nature, or at best of a position but ill adapted to the purpose.

The following is an example, no less important, of a fracture of this kind. A servant, 19 years of age, of small stature and feeble constitution, and who had long been affected with pulmonary catarrh, fell from the second story to the ground. Striking against the pavement, she received a wound upon the left knee, and a slighter bruise upon her head. She got up, but was unable to stand upon the wounded limb. She was carried to bed, and the wound bandaged. Afterwards, on being brought to the Hotel Dieu, the dressings were removed; and it was then seen that the patella was broken vertically into two unequal portions. The wound was suppurating and accompanied by great pain, extending over the limb. The general state of the patient was unsatisfactory. The tongue was foul, the skin hot and dry; she had much thirst, and some confusion of intellect, with insomnolence that refused to yield to powerful opiates. She had also frequent cough and expectoration. These complaints proved fatal.

A certain number of fractures of the same kind have lately been treated at the Hôtel Dieu. It is thus demonstrated that fractures of this kind, which have been passed over in silence in most works, and which have been altogether doubted by some writers, are nevertheless far from rare. But all these facts, at the same time, prove that this particular injury is always produced by direct force applied to the knee, and that it is generally accompanied by wound or bruising to a greater or less extent.

Diagnosis of Fractured Patella.—The diagnosis of fractures of the patella is generally easily established. When the bone is broken transversely, if the individual was previously standing, he falls to the ground and cannot get up; or if he makes the attempt, he immediately perceives that the limb has lost its power; he can only drag the broken limb while he rests upon the other. These symptoms prove the existence of fracture, but on examining the knee it is further found that this is flattened; and on applying the finger over the patella, the space intervening between the fragments of the bone is easily perceived. The superior portion is dragged upwards by the muscles inserted into it, while the lower is retained in its position by the ligament which is attached to it. On raising the limb powerfully, so as to elevate it towards the pelvis, the muscles in front of the thigh are relaxed, and the separation of the fragments of the patella almost entirely disappears. If they be then rubbed against each other, crepitation becomes obvious, which puts an end to all doubt as to the nature of the lesion.

When the fracture is oblique, or longitudinal, it requires a more careful examination to detect it in consequence of the smaller degree of separation which takes place between the fragments. However, in putting the limb in a semiflexed position, as practised by La Motte, the disunion of the fragments becomes more marked.

Treatment.—After what we have said, it will readily be perceived what the basis of our treatment ought to be. It consists in the application of means proper to remedy the accidents which accompany the fracture, and to effect the reunion with the greatest possible degree of exactness, of the divided portions. Absolute rest of the limb, general and topical bleeding, and emollients, generally suffice to accomplish the former purpose. As to the reunion of the fragments in the case of the transverse fracture, their separation being produced and constantly kept up by the action of the extensor muscles, the first indication is to neutralize this power, and to place the limb in a proper position; for this purpose I employ the following means. First, an inclined plane, formed of cushions placed one above the other, which ought to extend from the heel to the ischiatic tuberosity, and which has the double object in view of opposing the contraction of the flexor muscles, and of putting the extensor muscles in a state of complete relaxation, owing to the position which they give to the limb: secondly, two compresses, about twenty inches in length and four inches wide, made of thick strong stuff, which ought to be hemmed at the edges and extremities; the first is to be pierced with three apertures at one of its extremities, the edges of these apertures being also hemmed, while the other end is to be divided into three flaps. Thirdly, two bandages, three fingers' breadth wide, and from eight to ten yards in length. Fourthly, some graduated compresses.

The foot is first to be enveloped with some turns of the bandage; one of the long compresses is then to be laid on the dorsal face of the foot; the whole is to be fixed with pins, and by means of two or three additional turns of the bandage. The compress is then to be stretched over the anterior face of the limb. This being done, the turns of the roller are continued, gradually winding it upwards, till it be just below the patella, from which point it is turned back parallel to the limb. Whilst an assistant now raises powerfully the muscles at the posterior part of the thigh, the surgeon surrounds this, at its middle part, with three turns of a second bandage, and then places the end of the second long co[illegible] its anterior surface, where it is fixed by one or two further rounds, turn-

ing the extremity from above downwards. One or two more circular turns are made and the bandaging then continued to the upper edge of the patella, what remains being expended upon the thigh. Graduated compresses are then placed above and below the patella, and the flaps of the one long compress passed into the apertures above-mentioned, and the fragments approximated by drawing the compresses in opposite directions and fixing their extremities, one on the leg and the other on the thigh. The limb is then placed on an inclined plane, the slope of which directs the foot towards the pelvis in such manner that the heel is much higher than the knee and thigh. By these means, which all concur producing and maintaining an exact contract between the fragments, a perfect reunion by bone may be effected.

In ordinary cases the junction takes place through intervening ligamentous substance. Sir Astley Cooper and other surgeons have carefully observed fractures of the patella and neck of the femur, and they have found a transparent fibrous or fibro-cartilaginous substance between the fragments. At the time this celebrated surgeon was at Paris (in 1829), I submitted to his examination some preparations in which direct union had taken place, and in which this fibro-cartilaginous formation was not perceptible. Doubtless this reunion is to be attributed to the long interval which had elapsed since the cure, the callus having thus had time to become ossified. Observe what happens in vertical fractures, and you will be convinced of the justice of this opinion. There, as there is no separation, the callus is always ossified in from six to twelve months. It is, therefore, the separation produced by the action of the muscles which opposes ossification; and when this tendency to drag the fragments asunder is neutralized, the transverse union is in all respects similar to the longitudinal.

Danger of tight-bandaging.—But however firm and well applied the apparatus may be, its action is constantly weakened by the yielding of its tissue and the action of the muscles. Besides, the pressure of the bandages often becomes insupportable, and sometimes even excites the most formidable mischief; an example of which occurred, some time ago, in one of the hospitals of Paris. A man, 43 years of age, fell upon his right knee and broke the patella. Next day the joint was considerably swollen, and very painful, nevertheless, an apparatus was applied similar to that above described. It was so tight, that in the evening the patient suffered extremely, and passed the night in great misery; but it was not till the end of forty-eight hours that his violent and continued complaints induced the surgeon to remove the apparatus. Patches of ecchymosis had already formed on different parts of the limb, and there were even some brown spots; notwithstanding which, the bandage was actually applied as tightly as before; but next day it became absolutely necessary to remove it. Gangrene took place on the sixth day after the accident; and the only hope of saving the patient's life was by sacrificing his limb. Amputation was performed, but he died next day, and the following are the appearances which presented themselves in the limb, sixteen days having intervened since the accident. The fracture was transverse; the fragments were separated about an inch, but still connected by the tendon of the extensors which had not been divided, and by small fibrous bands which ran from the one portion of bone to the other, and which proceeded from the interior of the patella, and not from its surface. At first these bridles were taken for new formations; but this idea was soon disproved, by comparing their resistance with the recentness of their supposed formation. The broken surface did not present any asperities, these having been removed by absorption. Between the two fragments there was a reddish substance, the consistence of which increased in proportion as it approached the fractured surface; at which point, indeed, it was almost cartilaginous.

The treatment of vertical fractures is to be conducted on the same principles as those which are not transverse. The limb is to be raised on pillows, the muscles relaxed, and

the fragments kept in apposition. In this way the consolidation takes place in from sixty to eighty days. After this time, if the soft parts allow, the patient may be permitted to exercise the limb gently; taking the precaution to wear a knee-cap.

SURGICAL REPORTS FROM THE LONDON DISPENSARY.

By R. R. Robinson, Esq. Surgeon to that Institution.

CASE 1.—*Extensive Prolapsus Recti from debility, cured by tonic and astringent injections.*

JANE BIGG, æt. 72, admitted November 1st, a feeble old woman. Rectum protruded for the first time three weeks ago; it came down gradually, and has at times returned entirely. There is now a large portion (between two and three inches) of the rectum protruding, very red and villous, but not tender to the touch. Urgent tenesmus; difficult micturition; pain in the back; no appetite. After some little pressure the whole was returned through the sphincter. The rectum was so relaxed, that I am sure my whole hand might very easily have been passed into it.

Lot. Aluminis; Quin. Sulph. gr. j. ter die. Ol. Ricini, ℥ss. p. r. n, Rest.

Nov. 2d.—Easier; bowel does not come down more than it did; urine passes quite freely; less pain in the back; has not kept her bed entirely as she was ordered to do.

Ordered to bed. Perstet.

5th.—Six motions from castor oil; rectum again came down on the third instant, from straining, and has kept down until morning (not, however, to the same extent), when it went up, and is now entirely within sphincter.—Perstet.

10th.—Much more comfortable; has kept her bed; rectum is now prolapsed only when she goes to stool. A piece of sponge soaked in the alumn wash was introduced yesterday into the rectum; but it produced so much pain, that it could not be borne. Bowels open.

Rep. Mist.

12th.—Much stronger; quite easy; rectum does not prolapse.

Rep. Lot. Aluminis, et Quin. Sulph.

19th.—No return of prolapsus; quite comfortable.—Discharged cured.

CASE 2.—*Prolapsus Recti, with Inflammation and Deposit of False Membrane, cured by antiphlogistic means.*

John Dyer, æt. 53 admitted October 23d, a feeble tremulous man, a long time melancholic. Subject to hæmorrhoids; rectum prolapsed yesterday; has continued down ever since, and discharges a bloody serum. The anus is now occupied by a large tumor, evidently the prolapsed mucous membrane of the rectum, some parts of which are of a bright vermilion color, from numerous tortuous vessels; others are bluish, from veins shining through; parts are covered with flakes of lymph, of cauliflower-like excrescence, which adhered but slightly to the mucous membrane. The upper portion is dry, and of a deep grey color, like the state of the fauces when the seat of diphtherite. The whole tumor exceedingly tender and painful; pain greatly increased on pressure; bloody serum continues to ooze from it; he has made numerous and several unsuccessful attempts to return it. Leeches have been applied with some relief.

Pil. Hyd. gr. iij.; Pulv. Ipecac., Pulv. Scillæ, gr. j. o. n. Magn. Sulph. ℥ss.; Ant. Tart. gr. 1-8 ter die. Rep. Hirud.

Oct. 25th.—Pain very great, preventing sleep. Leeches applied again; would not take; feverish; dysuria; the prolapsed part as great as ever; the mucous membrane highly vascular, covered with an organized false membrane firmly adherent; bowels open. Attempts were again made to return the part by means of sponge dipped in cold

water; but though the tumor was diminished by these means, it was not altogether got rid of.

Rep. Mist. Lot. Plumb. ʒij.; ad. o.i. Tr. Opii. ʒi.

28th.—Tumor less; rather blacker; discharges serum; dysuria; no fever.

Cal. g. iij.; Opii. g. ss. h. s.; Rep. Mist. et Lot.

November 1st.—Dysuria increased; was much griped by the calomel. Ten leeches were applied, and a bread and water poultice substituted for the lotion. He is reported to have lost nearly a quart of blood. The pain immediately subsided; the prolapsus has entirely disappeared; there are only a few piles visible around the anus, He micturates freely; no fever.—Rep.

5th.—Convalescent; feeble.

Inf. Gentianæ, c ʒiss. ter die.

Remarks.—In the two preceding cases we have illustrations of the same disease depending upon different causes, and requiring very different treatment. In the first the prolapsus appears to have been owing merely to local and general debility. There was an entire absence of pain and fever. The prolapsed mucous membrane did not appear in an unnatural state; but the whole rectum was exceedingly relaxed. The alumn wash acted as an astringent on the prolapsed part; the recumbent position assisted in preventing the descent when the membrane had been returned; the quinine improved the general health, and in nineteen days the cure was complete.*

In the second case, although there was general as well as partial debility, there was also much general and local irritation, which gave rise to subacute inflammation of the prolapsed mucous membrane; its vascularity was very great: it was quickly covered with a greyish false membrane, which also soon became organized and granular, and showed a tendency at one part to ulcerate, and at another to mortify. It was attended with very acute pain and much fever, and required the antiphlogistic treatment for its removal.

From the striking resemblance the appearance of this membrane had to the tonsil, when affected by one form of inflammation, I was induced to try mercury, which, from its irritating the rectum, as it is apt to do, I was obliged to leave off. From the good effects of the large loss of blood, and the substitution of poultices for cold lotions, it does not seem necessary to resort to mercury to any great extent, except where the disease assumes a chronic form, and there is a tendency to deposition between the coats of the bowel, and then the Hydr. c. Creta. or Pil. Hydr. will be preferable to calomel.

Much as it is desirable to return the prolapsed part, as the sphincter acts as a ligature and still further engorges the membrane, it will, I think, *generally* be found useless, and *always* very painful, to make the attempt in this form of the disease, until the inflammation and swelling have somewhat subsided, and then the part usually returns with facility of its own accord.

Two other cases of prolapsus recti occurred at the dispensary much about the same time as these; one in a boy, æt. 2½, who was cured in ten days by the alum-wash alone; the other was also in a boy, æt. 3, who had a short time previously been the subject of hooping-cough, by which his system had been much weakened; in this instance the membrane was slightly ulcerated; he was, however, entirely cured in three weeks by alum-wash, bark, and soda.

In these instances the prolapsus was chiefly, if not entirely, seated in the mucous membrane. In some cases, however, the other coats of the rectum have been likewise prolapsed.

* I have since learned that she has had no return.

VAGINAL CÆSAREAN OPERATION,

With other cases, occurring in the practise of Martin A. Evans, M. D., Galway.

About three months ago I was called to see Mrs. O'Maley. æt. 27, residing about five miles from this place. She had been then nearly forty-eight hours in labor, and on examination I found that scarcely any portion was preceptible which might be termed the os uteri. There was a general round mass—the uterus, enveloping the child's head, presenting itself in the upper part of the vagina; and it was only after a protracted search that I could discover a slight depression, the size of which scarcely equalled the diameter of a very small split pea.

The midwife was confounded, having never met with such a case before, and she informed the woman's friends that no hope remained, save that of cutting into the uterus through the abdomen, and thus extracting the child. A vague belief of recoveries effected in this way prevails pretty generally in this district. To execute this purpose I was sent for. The patient herself was a woman of strong nerve and frame, and unceasingly insisted on my commencing the operation, her pains being extremely severe. However, notwithstanding her entreaties, and those of her friends, I postponed any operation for twelve hours, and until I had given a fair trial to nature, having, during that interval, bled her and found every thing unavailing. The pains, which at the early part of my visit were so powerful, now began to flag; her pulse became hurried and weaker, and there was no alteration whatever in the state of the os uteri.

Under these circumstances I commenced the operation, by introducing the index finger of the left hand, and fixing it at the small aperture. I then passed, with my right hand, Sir A. Cooper's hernia knife, and, using the index-finger as a director, divided the os uteri in various directions, each cut being about an inch in length. There was not much hemorrhage; the uterus immediately receded from the head, which, large and disproportionate to the diameter of the pelvis, presented itself. I then waited for half an hour, and no natural pains occurring, I tried, but ineffectually, to pass the forceps. This reduced me to the necessity of having recourse to *cephatalomia*.

The child (a male) lived for about twenty hours after the skull was completely evacuated of brain, and was regularly baptized the day after its birth. It appeared perfectly sensible of the changes of temperature when cold water was poured on it, as evinced by its cries. I am not aware of any case in which an acephalous, or I should rather say, brainless child, has lived so long.

My patient walked to chapel in three weeks after, and is now one of the healthiest of women.

I should add that twelve months previously, I delivered the same person of a dead child by means of the forceps.

DESCENT OF TESTICLE MISTAKEN FOR INGUINAL HERNIA.

Twelve months ago a child, aged one year, was brought to me supposed to be laboring under inguinal hernia. A colorless solid tumor presented itself at the external ring, and it was bandaged in order to prevent the further descent of the suspected hernia. On examining the scrotum I found that it only contained one testicle, and of course concluded that the tumor was the other, in progress to its destination, from which it had been unusually retarded. It is unnecessary for me to add how injuriously the pressure for hernia, if continued, would have operated in this case.

Tic Douloureux.—Moxa imitated with the Cigar.

Abstract from a Lecture by Mr. Dermott.

Tic douloureux results from a morbid irritability of the nerves, and I believe its immediate seat to be generally in the portio dura, which you know is a nerve of respiratory motion in the face. This statement is somewhat at variance with common opinion, but the following facts seem to favor my belief: 1st. The pains generally dart in the directions of the filaments of the portio dura, branching from the ear forwards, and engaging the side of the forehead and the region of the temple. 2d. In connexion with this disease, you will often find the stomach considerably, and perhaps habitually deranged in function, indicated by fetid eructations, considerable secretion of wind, and flatulency. This sympathy between the portio dura in the face and the deranged stomach (which is supplied with respiratory nerves, and is by them associated in action with the respiratory organs) is established through the medium of the respiratory system of nerves on the par vaga which supply the stomach. The lungs are often sympathetically affected, and these are partially supplied by the par vaga. A decided and nice distinction must be made between the morbid irritability or condition of a nerve constituting tic douloureux, and common subacute or chronic inflammation, or rheumatism of a nerve. In the latter affections the pain does not come on in such sudden paroxysms, nor are there such intervals of perfect ease, as in the former, although, it is true, the two are often combined, or the chronic inflammation may, especially in a depraved habit, slide into tic douloureux. Irritation or inflammation existing in the maxillary nerves of sensation (fifth pair), and produced by a carious tooth, or any similar evil, is often the cause of this diseased action in the portio dura. Amongst other exciting causes are frequent and sudden movements of the jaw, as in much speaking. In very nervous individuals, the mere thought of the paroxysm will bring it on. If you consult the close locality between the cervix of the lower jaw and the portio dura (as seen in this dissection), you will at once perceive why violent motion of the jaw may, by acting as a mechanical local stimulus, bring on an attack of the disease. Observe the close proximity of the two after the portio dura has emerged from the foramen stylo-mastoideum, as it is crossing the bifurcation of the external carotid, and as it divides into leading branches—buried deeply in the parotid gland. My plan of applying the moxa in the local treatment of this disease is to light a cigar, and, when well lit, to apply the lighted and bright end for one moment against the skin, just over the emergence of the portio dura, from the foramen stylo-mastoideum, and anterior to the concha. One or two such momentary applications will produce a strong rubefacient effect—perhaps in the course of a short time a very slight blister will arise; but the pain of such a slight burn is not to be compared with that of tic douloureux, and the most sensitive lady will readily submit to the operation, when she has once experienced the relief which it produces. I often, previously to using it, smear the end of a linen rag with a little croton oil, and rub it on the cheek anterior to the concha; indeed, this alone, or combined with opium and used as an embrocation, often relieves the pain, but the croton oil takes time to produce its effects, which the moxa does not. In severe attacks, however, the previous external use of a little croton oil very desirably increases the cutaneous inflammation. Should a morbid and painful sensibility exist in the supra-orbital nerve, then apply the cigar near the supra-orbital foramen; or if in the inferior maxillary nerve, apply it over the anterior mental maxillary foramen—or if in the infra-orbital nerve, over the inferior orbital foramen. This mode of applying the moxa is very easy, and can generally be had recourse to at a short notice. It is, however, only a palliative remedy. In all cases of tic douloureux study both the general and particular symptoms.

LECTURE BY WILLIAM STOKES, M. D.,

Delivered at the Medical School, Park Street, Dublin.—Session 1833—34.

Opium in Fever—Dr. Latham's Opinion on—Adynamia—Treatment of—use of Stimulants—Typhus, Symptoms of—Pneumonia of Fever—Symptomatic Affections of the Respiratory System in Fever—Phthisis, consequent of Fever.

GENTLEMEN,—I drew your attention at our last meeting to the employment of opium in the treatment of some of the nervous symptoms of fever. Before I leave this subject, I wish to lay before you a brief abstract of Dr. Latham's opinions on this point. I believe I may say that, one of the first persons who proposed and administered opium in fever was the celebrated Sydenham. His opinion of it was, that after purgation it is generally productive of good effects. At the present day, there is considerable difference of opinion with respect to giving opium in fever, but there can be no doubt that it may be given with propriety in many cases, and that it has a powerful effect in combating some of the worst symptoms of typhus. Dr. Latham observes, "In some cases of fever, the disorder of the sensorium keeps pace with that of other parts; and thus the disease proceeds until it is somewhat advanced, when the harmony between its symptoms is disturbed. Those of the brain outrun the rest. New indications of treatment arise, and if the patient can be saved at all, it must be by opium. Thus the heart and arteries may be full of activity, and every symptom in proportion to it. Remedies are accordingly addressed to the vascular system, and succeed for every purpose they are intended to fulfil, except one. By venesection, or topical bleeding, the general symptoms are relieved, and each organ loses its peculiar distress, but still *the delirium continues*. With an improved state of the circulation and of other organs, this condition of the sensorium remains, and to this subsultus tendinum is liable to be added, and the restrained passage of the different evacuations."

"In such a case as this," says Dr. Latham, "I have seen a single dose of opium, administered, change the whole complexion of the disorder in a single night, and place the patient at once in a state of safety. Again, I have seen the sensorial affections incident to fever, which require opium for their cure, manifest themselves in another form. There has been high vascular action from the first, and large depletion has been required to subdue it, and guard particular organs, and especially the brain, from injury. Under such treatment all has gone on successfully, and the patient has reached the point of convalescence, when suddenly (the tongue, pulse, and all other circumstances continuing favorable) some strangeness of manner has arisen, and then the wildest delirium, and then the unrestrained passage of the evacuations. I have known a transition from such a state of convalescence to such a state of peril take place in a few hours, and I have known the patient again brought back to a state of convalescence in twenty-four hours, by a moderate dose of opium."

Three circumstances call for the employment of opium in fever; first, where there is persistent watchfulness; secondly, where an actual inflammatory condition of the brain existed, and has been subdued by proper antiphlogistic treatment, but delirium and other nervous symptoms still remain; and, lastly, where an excited state of innervation of the brain exists, without heat of scalp or remarkable throbbing of the arteries of the head. There is another remark of Dr. Latham's which appears to me so important, that I shall offer no apology for laying it before you in full. After observing that the affections of the brain in fever are capable of much illustration, from a knowledge of the habits and state of health of individuals before they become the subject of fever, he goes on to say, "And here I would make one general remark, that by knowing what a man is, and how he lives habitually, the physician often arrives at a much better judgment and a better treatment of his diseases. It is trying a man's diseases by his health, and a most valuable test it is.

"In healthy and vigorous bodies, there is a certain balance and regularity of function which, even when disease befalls them, is seldom lost, but their morbid action is still harmonious and proportional. In them, diseases are often severe, but they are generally simple; they often require the most active remedies, but they are generally easy of cure. On the other hand, the weak and valetudinary, who, at the best, are full of jars and incongruities, are obnoxious to the strangest forms of disease, hard to understand, and hard to treat. Now fever, when it happens to a perfectly vigorous and healthy man, is never characterized by any such peculiar affections of the sensorium as have been mentioned. These are incident, according to my observations, to those only whose habits and modes of living have been calculated to do an abiding injury to the nervous system, and who have been long actually suffering from such an injury. Every class of society has furnished me with instances of this form of fever, and every instance has confirmed the truth of the remark.

"Among the higher and educated classes, there is in this age and country a wonderful striving for all the objects of wealth, and honor, and power. We need only think upon the strife of politics, the hazards of mercantile gambling, and the wear and tear of hard professional toil, to see how many there must be who, from the common business of life, have derived, both to their minds and bodies, new feelings and impulses, and new susceptibilities of disease. These susceptibilities chiefly belong to the brain and nervous system, and they are apt to come forth in frightful activity when such men become the subjects of fever. The trouble of the brain gets the mastery (as it were) of the disorder of every other part.

"The poor and mean among mankind have the mind overwrought, and the nervous system exhausted by real calamities; just as the high and educated by their more refined: and thus they often claim an unenviable approximation to them in the characters of their diseases.

"To these moral causes," says Dr. Latham, "I will add one physical cause which is of most extensive influence, the habitual indulgence in spirituous liquors. Individuals who have done a permanent harm to the nervous system by the abuse of spirits, do never when they become the subjects of fever, suffer delirium of the ordinary kind, in which the brain is excited nearly in the same proportion as the blood-vessels, and which by remedies addressed to the blood-vessels is uniformly controlled; but they suffer a delirium in which the brain is actuated disproportionately to, and (perhaps) independently of, the blood-vessels, and, if curable, to be cured by opium. This I venture to state almost absolutely and without exception."

Gentlemen, I can only state here, that the foregoing eloquent and philosophical observations are in perfect accordance with what I have observed of fever in Dublin. In all cases where the patient has been exposed to the depressing effects which high intellectual or moral excitement, or the abuse of spiritous liquors, produces on the nervous system, you will have, during the course of fever, more or less disorder of the sensorium. Here, but particularly if the delirium exists independent of any affection of the blood-vessels, opium is our sheet-anchor. With respect to the quantity to be administered, there are some cases in which it will be necessary to feel your way, and indeed I believe that in all cases this is the best and safest practice. In place of giving a large dose, as in delirium tremens, you commence with a moderate quantity, and if you find that this agrees with the patient, you can increase it: at all events, by pursuing this plan you will be certain of doing no harm. It frequently happens, too, that small doses act very well in this affection, you should therefore begin with a moderate dose, watch its effects on the patient, and then repeat it in increased or diminished quantity according to circumstances.

Towards the conclusion of my last lecture, I drew your attention generally to the sub-

ject of adynamia in fever, and endeavored to show that in most fevers you have to contend with indirect as well as direct adynamia. Direct adynamia is that prostration of the system which results from the original disease; indirect adynamia is that which is produced by the reaction of the secondary local affections. I showed you that in many fevers we had, in addition to the debility consequent on an affection of the whole system, another source of adynamia depending on the local diseases which arise during the progress of fever, and that consequently the treatment of adynamia must vary according to the circumstances under which it occurs. I said that the indirect adynamia must be combated by local antiphlogistic means directed to the inflamed organs, but that in the employment of these means we should not be so vigorous as in cases of idiopathic inflammation, and that the general state of the patient should be always kept in view. You will readily assent to this proposition, when you consider that in idiopathic disease you have inflammation occurring in a constitution previously healthy; but in the case of local disease supervening on fever, in a constitution previously debilitated by general morbid derangement. It occurs, in fact, in that state of body in which there is a profound affection of the solids and fluids, of circulation, of digestion, and of the nervous system. You can therefore easily understand why the antiphlogistic plan must be employed with more caution, and followed up with less vigor, in the treatment of those secondary affections which arise during the progress of fever.

I mentioned, too, that in most cases of advanced fever, and sometimes even at an early period of the disease, the employment of stimulants may be necessary, *even when the fever is accompanied by local disease.* A period occurs in all fevers (generally at the advanced stage), when general stimulation will be demanded, even though you may at the same time be able to detect local irritation. In such cases as these we might say that direct adynamia was predominant, and that, as danger was to be chiefly apprehended from this cause, we must meet it with stimulants. You will recollect I mentioned at my last lecture, that a state of the general system and of the local disease occurred at an advanced period, to which antiphlogistics were no longer applicable, and in which, by giving stimulants, we assisted the efforts of nature, and gained time for the treatment of the local affection; in a word, that the formula of treatment for most cases of fever was the same as in cases of idiopathic inflammation. In the early period we employ antiphlogistic means, both general and local; in the advanced stage we use stimulants and tonics. In all cases of simple inflammatory disease, a time arrives when you must change your hand, and have recourse to an opposite line of practice, and the same thing occurs with respect to fever, whether we view it as an original affection of the whole system, or as symptomatic of some local irritation. I showed you, too, that you might in many instances combine local antiphlogistics with a general tonic treatment, the latter to be regulated so as to support the patient's strength without increasing the local disease. It will often happen that in the advanced stage of fever you will meet with enteritis, or pneumonia, or some other local inflammation; here, while you are engaged in reducing the local inflammatory affection, you may also support the patient's strength with light nutritious diet, and even a little wine. In Dr. Grant's work on fever, there is an important remark bearing on this point, which I shall beg leave to quote. "I know," says he, "two physicians, both in considerable practice, and both honest men, who have constantly treated fever badly from different causes. The one never gave cordials, wine, or nutritious food, during the whole disease; the other, after the fourth day, never gave any thing else. A combination of both these modes, employing each according to the circumstances of the case, would be very excellent practice. Their error, however, was not entirely the same, nor did the same effects result from these opposite modes of treatment. The patients treated by the physician who persevered in the antiphlogistic

system seldom died, but their recovery was tedious and protracted. Those who were treated by stimulants throughout the entire disease seldom recovered." Observe, gentlemen, how well this agrees with the doctrines I have laid down for the management of fever. The first practitioner generally cured his patients, but their convalescence was slow and difficult, because he used antiphlogistics too boldly and too long. He was ignorant of the fact, that, after a certain period and at a particular stage of the disease, antiphlogistics lose their efficacy, and his patients may therefore be said to have recovered by the unaided powers of nature. He was ignorant also of the fact, that, at a certain period of fever, certain conditions of innervation exist, in which what are called stimulants have a powerful effect in removing the disease, even though characterized by symptoms which have been termed inflammatory; while he who used nothing but stimulants, being ignorant of the number and consequence of the local inflammations, lost his patients by a too early and indiscriminate stimulation.

I shall now proceed with the analysis of the symptoms of typhus and the proper mode of treating them. Having discussed those which belong to the nervous, let us now take up the consideration of those which characterize affections of the respiratory, system. Before, however, we leave the subject of nervous symptoms, I may mention that some researches have been lately made on the state of the spinal cord and ganglionic system in fever; but there has been no result from these investigations calculated to throw any *new light* on the nature and treatment of the disease. Indeed, it is a remarkable fact, that in many instances of fever remarkable for the extent and persistence of nervous symptoms, we cannot detect any lesion of the brain or spinal cord. In certain cases it has been stated that the sympathetic nerves were found diseased; but this occurs so seldom, and with so little constancy or correspondence of the existing symptoms with the derangement of the nerves, that it is impossible to establish any connexion between lesions of the ganglionic system and typhus.

I believe, I may say, that a considerable number of cases of typhus are either accompained by thoracic symptoms, or, if they do exist, they are in general slight and easily manageable. In some instances, however, the pulmonary system is severely attacked; and, in many cases of this description, death is caused by asphyxia from exorbitant secretion, brought on by extensive bronchitis occurring during the course of fever. There is one general observation, which applies not merely to the derangement of the respiratory system, but also to the morbid changes which may take place in any viscus of the body during the progress of typhus; and this is, that the functional derangement observed in each particular organ during life is seldom in proportion to the changes discovered after death. With symptoms of an apparently trifling character, and by no means calculated to alarm, you may, in the case of the lung, find after death marks of universal bronchitis, of enormous congestion, or extensive pneumonia. The same character of insidious latency applies to all the inflammatory affections which come on during the progress of fever. If we seek for an explanation of this fact, we shall, perhaps, find it in considering, that, during the existence of fever, the nervous system appears to be laboring under some profound injury; and we know that where innervation is injured, sensibility is impaired, and hence the symptoms expressive of suffering or disorganization are more or less latent. Hippocrates observes, in one of his aphorisms, that in cases of severe disease, where no pain is complained of, there is disease of the brain, thus accounting for the absence of suffering by referring it to some lesion of the sensorium.

In speaking of the catarrh fever, I beg of you to bear in mind that this, like all the other inflammatory affections supervening on fever, is to be looked upon as a secondary inflammation. When I use the term catarrhal or gastro-catarrhal fever, I do not mean to express fever symptomatic of catarrh, or of catarrh combined with gastritis, but that the

catarrh, whether simple or combind with gastro-enteric disease, is one of the results of fever. There can be no doubt that, in the majority of instances, this is the case. All the arguments which I have adduced to prove that affections of the brain were not the cause of fever apply also to disease of the lungs; and we shall find the same thing to hold good when we come to the digestive system. The experience of Andral, Louis, Laennec, and various British authors, who have written on fever, perfectly coincides on this point. You will see, in Laennec's work on auscultation, that he has devoted a great deal of his attention to those secondary affections of the lungs which occur during the progress of fever.

Now, in many cases, this bronchitic derangement may exist during the whole course of the disease without any degree of violence, and the patient will recover without having any attention paid to it; in fact, many will go through fever with lesion of the bronchial mucous membrane so light as to have no claim to notice. The occurrence of an affection of so trifling a character as this, is not sufficient grounds for altering or modifying your prognosis; still it should always put you on your guard, for it may, in the course of six or seven days, become greatly exacerbated, assume a very intense character, and even carry off the patient. Whenever, then, you discover any increase in the bronchitic symptoms, direct your attention immediately to the state of the lung, and be on your guard lest the disease should get ahead of you. What we generally observe in these cases is, that the patient has some cough, but this is neither hard nor troublesome; you can hear now and then a few sonorous rales over the chest, but it sounds quite clear on percussion. Such a case as this, as long as it remains unchanged, is of very little consequence. In some instances, however, the affection of the bronchial membrane becomes a most formidable symptom: the patient has lividity of face, cough, hurried breathing, and expectoration, and all his symptoms point out the existence of a very extensive disease of the lungs. In other cases, the symptoms of bronchitis may be almost entirely absent, and yet, if you make an examination with the stethoscope, you will detect the existence of a latent but general and intense bronchitis. Here, persons unacquainted with the stethoscope, and depending on symptoms only, may be led into great and fatal errors. Nay, even persons acquainted with the use of this instrument may, by neglecting to make a proper examination, fall into great mistakes. Thus, if you apply the stethoscope to the patient's chest while he is lying on his back and breathing in the ordinary way, all you can ascertain is that there is feebleness of respiration, with here and there a sonorous rale. If you were to content yourself with such an examination, and decide as to the state of the bronchial, mucous membrane from the signs afforded by ordinary respiration, you would be wrong; for though the rales may be few and scattered during ordinary breathing, you will find that when you raise the patient up and make him take a full inspiration, so as to cause the air to enter the minute bronchial tubes and air vesicles, the rales become intense and are audible over a large portion of the lung. You will find also that the disease generally affects the middle, inferior, and posterior parts of the lung, and that it produces here symptoms approximating to those of pneumonia. Another curious circumstance, connected with cases of this description, is, that, according as the patient gets better, the rales become louder and more distinct; and here we have the apparent anomaly of an increase of the morbid sound, pointing out a decrease of the disease. This is explained by recollecting, that, at the height of the bronchial affection, the minute bronchial tubes and air vesicles are chiefly engaged, and, as from the engorgement of the lining membrane, the quantity of mucus which fills them, and the feeble state of respiration, the air either does not enter into them, or, if it does, only imperfectly, the consequence is that the characteristic rale, or morbid sound, is scarcely heard. But when the disease is on the decline, and the minute tubes become free, the bronchial affection being then

chiefly confined to the larger tubes, we can hear the sonorous rale distinctly during ordinary breathing. Many cases of this kind terminate fatally. The patient continues in a low adynamic state, with hurried breathing, and lividity of face for two or three days; then comes a rattle in the throat, and in the course of ten or twelve hours he dies. On dissection the marks of general bronchitis are evident, and the bronchial tubes are found filled with a sanguinolent mucus. In some of these cases super-secretion from the bronchial mucus membrane sets in with extraordinary rapidity, and carries the patient off at once.

This form of disease is ordinarily co-existent with derangement of the gastro-intestinal mucus surface, and this forms one of the most common and fatal varieties of fever in this country. In some cases the disease predominates in the respiratory, in others in the digestive, system, and in some instances you will see a very curious alternation of this predominance of morbid action between the thoracic and abdominal cavities. To-day the breathing is hurried, the cough troublesome, the stethoscopic signs well marked; in two or three days after the cough disappears, and the breathing is relieved, but the belly is more swollen and tender, and the tongue has become redder and more parched. Then the abdominal symptoms will improve, and the indications of pulmonary irritation become again more manifest, and thus, even during the course of the same fever, we may have several alternations of this kind. This complication of disease of the thoracic and abdominal cavities is extremely common in fever; in fact, it may be almost laid down as a general rule, that, in the affections of the respiratory system in fever, there is a complication with disease of the digestive tube. Now you should always bear this in mind, and, when you prescribe medicines to relieve the pulmonary affection, you should take care that they shall not produce irritation of the digestive system.

In most cases of severe bronchial inflammation you will observe more or less lividity of countenance. This is not seen in cases of simple pneumonia occurring in fever. Bronchitis has a much more powerful effect in producing this phenomenon than pneumonia, and hence it is that slight bronchitis will cause more lividity of countenance than extensive pneumonia. This fact seems to be in accordance with the opinion, that the portion of the lung, in which the process of aeration is carried on, is the bronchial mucous membrane and not the air vesicles. In inflammation of the air-cells of the lung we have little or no lividity, but we never see a case of extensive bronchitis without it. I may mention here, also, that I have seen several cases of bronchitis with very remarkable lividity, in which the temperature of the body was above the natural standard, thus giving a direct proof that animal temperature depends on something else besides the aeration of the blood.

We come now to speak of the pneumonia of fever. This affection may occur under two forms, that is to say, its symptoms may be manifest and prominent, or they may be latent and inappreciable, except through the medium of auscultation. Of these forms the latter is the most common. You may in typhus have all the symptoms present which characterize idiopathic pneumonia, you may have hurried breathing, cough, pain in the chest, bloody expectoration, &c.; but, I believe, that, in the majority of cases, the pneumonia fever is more or less latent. It often happens, that, at an advanced period of fever, without any increase of dyspnœa, or cough, the patient gets worse, and this change you may be sure is indicative of some great visceral lesion. The pulse gets smaller and more feeble, and, on making an examination, we generally find the cause to be an extensive but latent pneumonia. Without manifesting its existence by any of the usual symptoms, the disease comes on insidiously and rapidly, and, on examining the chest with the stethoscope, we hear the crepitating rale over a large portion of the lung, and the chest sounds dull on percussion to a very considerable extent. Observe here, gentlemen, the importance of a thorough knowledge of auscultation. I think I may safely venture to assert, that a

person, ignorant of percussion and the stethoscope, is totally incompetent to undertake the treatment of any case of fever. I know it has been asserted by some authors, that these affections of the respiratory system are more of a congestive than an inflammatory nature. To this opinion I cannot subscribe. We find in such cases, on dissection, all the pathological appearances of active inflammation, redness, thickening, and ulceration of the mucous membrane, sanguinolent secretion, congestion, hepatisation, purulent infiltration, and even abscess of the lung.

It is a very remarkable circumstance, that the pleura seems, of all the pulmonary tissues, to be the least liable to morbid alterations in fever. From the details of a great number of modern dissections it appears, that, in many cases of fever, where extensive bronchitis and pneumonia were found to exist, the pleura has in almost every instance escaped. If this be true, it would seem to point out some difference between ordinary idiopathic pneumonia and the pneumonia of fever. In the former we have generally more or less pleuritic inflammation, in the latter it is rarely met with. There is in most cases of bad fever an effusion of bloody serum into the cavity of the pleura, and the same thing has been observed in the case of animals who have been poisoned by the introduction of putrid substances into the veins. This leads us to the knowledge of a fact connected with the history of typhus, that the tissues which are most liable to secondary inflammation are the mucous membranes and parenchymatous organs. On the other hand, the serous membranes seem to enjoy a comparative exemption from active disease. We meet with arachnitis now and then, but very seldom with pleuritis, pericarditis, and still more rarely with peritonitis. Though you may have extensive pneumonia in the chest, or enteritis in the belly, you will have no trace of the existence of inflammation of the peritoneum or pleura; and there can be no doubt that serous membranes are least liable to inflammation in fever. We might attempt to explain this by considering that serous membranes possess but very little sensibility, and consequently are less susceptible of irritation. In the healthy state they seem to be insensible, and we cannot trace nerves in their substance or on their surfaces. This insensibility appears to be one cause of their exemption; another is, that they are supplied with white blood, a portion of the circulation which seems to be least altered in fever, that which is most affected being the fibrin and coloring matter.

Let us now discuss the symptomatic affections of the respiratory system in fever. You may have dyspnœa, hurried breathing, and cough, and yet, on examination, you cannot find any distinct signs of bronchitis or pneumonia. You will often meet with symptoms of pulmonary derangement in fever, and yet, when you come to apply the stethoscope you find either no sign of disease, or, if there be any, quite insufficient to account for the symptoms. Under these circumstances, the affection of the chest must be looked upon as sympathetic, and the disease which is its most common cause is gastro-enteric inflammation. Here, again, we have another remarkable instance of the value of the stethoscope. Symptoms indicating marked pulmonary derangement exist, and if we had not this means of regulating our judgment, we should most probably conclude that there was actual disease of the lungs, and would proceed to treat a sympathetic for a real affection. But, by the aids which physical diagnosis affords, we arrive at a knowledge of the real seat of the disease, and are enabled to direct our curative measures with certainty and effect. But, when I say this, I beg of you to understand that I do not mean that you should be satisfied with a slight or single examination of the case. It may happen that these symptoms (wholly dependent on sympathetic irritation) may go on in this way for several days, and then a change may take place, and *organic disease of the lung supervene*. It is a common but, generally speaking, a true observation, that sympathetic irritation of any organ (when *long* continued) has a tendency to terminate in actual disease. The circumstances which

favor this change are, first, the excessive violence of the functional derangement, and, in the next place, its long continuance. You must be, therefore, on your guard, and examine the chest from day to day, and if any signs of inflammation appear, meet them with promptitude, and you will generally succeed in averting dangerous consequences. There is another circumstance worthy of remark, If you have sympathetic irritation of any organ without fever, the chances are that it may go on for a long time without producing any bad effects, but if it be accompanied by fever, there is a greater probability of its being converted into organic disease. This should make you cautious in cases of sympathetic affections of the lung in fever. As far as my observation goes, I would say, that when disease of the gastro-intestinal surface is followed by an affection of the lung, the morbid action generally takes place in the left lung and in its lower lobe. There seems to be a greater sympathy between the left lung and the stomach, then the right, and you should therefore direct your attention particularly to the left side of the chest. It is a curious fact, that inflammation of the lower part of the left lung is very frequently connected with pericarditis and gastritis. There seems to exist a very remarkable sympathy between organs on the same side of the body. This is a curious fact, and demands some other explanation besides that which was given by Mr. Hunter, who attributed it to continuity of position.

The last subject to which I shall allude is, that a liability to chronic disease of the lung very frequently occurs in those cases of pulmonary derangement during fever, and this is apt to come on after the symptoms of the original attack have subsided. In several instances of this kind, you will observe that the bronchial symptoms which are present in fever, and which do not excite any degree of alarm, will very often, on the subsidence of the fever, assume a more threatening character, and pass into phthisis. There is something in the course of fever which has a strong tendency to develope tubercles in persons who are in any way liable to them. We have had numerous examples of this fact among the fever patients treated in the Meath Hospital. Such of you as are anxious for more detailed information on this point, I would beg leave to refer to some researches of mine on this subject, published in the Transactions of the College of Physicians. In the epidemic of 1826 it was a common thing to see our patients, after recovering from fever, attacked and carried off by phthisis. This form of phthisis ran through all the usual stages, from the recent formation of tubercles up to the formation of cavities, and was generally very rapid in its progress. In one case the patient died of consumption in seven days after the subsidence of the fever.

If, then, you find towards the close of fever, that the patient has dullness under one or both clavicles, with feebleness of respiration, and the other signs of phthisis, you should be on the look out for tubercles. If you find the dullness increase every day, you may be pretty sure of the occurrence of tubercular development. On the other hand, you should remember, that of all the cases, in which bronchitis is most likely to simulate phthisis, it is when it comes on after fever. A patient getting an attack of bronchitis after fever, will in that weak and debilitated condition, exhibit in a short time all the symptoms of phthisis. He will have bad cough, laborious breathing, great emaciation, and well-marked hectic. Yet in many instances I have seen such patients recover under a judicious treatment.

INTERMITTENT FEVER SUCCESSFULLY TREATED BY BLOOD-LETTING IN THE COLD STAGE,

As recommended by Professor MacIntosh, of Edinburgh, in his admirable work on the Practice of Physic, published in the Register and Library, &c.

The following cases, furnished by Dr. A. G. Henry, confirm the propriety of the practice recommended by the Scotch professor.—

Case 1. —— Sales, aged about forty-five (and weighing upwards of 290), of strong con-

stitution, having enjoyed uninterrupted good health for many years, was seized with severe rigors on the 6th of August, 1834, which continued for four or five hours, accompanied with great difficulty of breathing; and so great were his sufferings, that serious apprehensions were entertained by his physician of a fatal termination in the cold stage. The hot stage was unusually severe (in consequence probably of his gross habit of body), and lasted six or seven hours. I was requested to see him the next day. I did so, and found him just beginning to chill and breath laboriously, exhibiting every mark of great suffering. I applied hot applications to his feet and hands, and administered large doses of diffusible stimulants; but the symptoms becoming more urgent, and believing that unless speedy relief was obtained death would be the consequence, as a last resort I determined on trying Doctor Macintosh's plan of blood-letting in the cold stage of agues. Accordingly I opened a vein in the arm, and with much difficulty succeeded in getting twelve or thirteen ounces of blood. So soon as the blood commenced running freely, the pulse, from being almost imperceptible, became fuller and perfectly distinct; the rigors were stopped, and every symptom which a moment before had threatened a speedy dissolution, were greatly relieved. This continued for eight or ten minutes, when the symptoms returned in all their former violence. I reopened the vein and took fifteen or sixteen ounces more, which gave permanent relief to all the distressing symptoms. The skin soon became moist; and no hot or sweating stage followed. I directed ten grs. of quinine to be taken during the night, he recovered his usual health in three or four days, and has had no recurrence of the disease since.

The astonishing effect of bleeding in this case inspired the fullest confidence in Doctor Macintosh's mode of treatment, and induced me to resort to it in the following cases without any dread of consequences :—

Case 2. —— West, laborer, was taken with a tertian ague on the 18th August, 1834. His rigors were strong, and continued for an hour and a half, accompanied with distressing retching and vomiting. I saw him for the first time in the last stage of the second paroxysm. I made arrangements to be there in time to anticipate the next regular paroxysm, which I accordingly did. I waited until the cold stage became perfectly formed and he had begun shaking violently, for the purpose of demonstrating more fully the power of the remedy. I now opened a vein, and, with less difficulty than anticipated, succeeded in getting six or eight ounces of blood, when the shaking ceased entirely, the skin became moist, and he expressed himself as feeling entirely relieved. No hot or sweating stage followed. Eight grs. of quinine combined with four grs. of piperini were directed to be taken in the course of the next day: no paroxysm followed.

Case 3. Mathew Crowder, laborer, aged thirty-five, and of full habit, was taken on the 28th of August, 1834, with a quotidian ague. I saw him an hour before the third expected paroxysm. His general appearance was indicative of his having suffered severely during the previous paroxysms, the rigors having continued near two hours, accompanied with a distressing sense of suffocation, and the hot fit lasting within three or four hours of the next paroxysm. I waited as before, until the cold stage had become completely formed, when I opened a vein; but in consequence of the operation having been badly performed, I did not succeed in getting more than three or four oz.; this quantity evidently relieved the symptoms for a few moments. I now opened a vein in the other arm and by the aid of frictions soon got the blood to run freely, when the rigors suddenly ceased. I let the blood flow to the extent of fifteen or sixteen oz. when the pulse rose, became full and soft. He now declared that he felt better than he had done at any time since his first attack. No hot stage followed, but he continued free from any unpleasant symptoms, and with the assistance of a few ague pills he rapidly recovered.

Case 4. George Kingsley, brick-mason, aged twenty-five, was taken with a tertian ague on the 6th December, 1834, from exposure to wet and cold. I saw him for the first time in the hot stage of the first paroxysm. His fever ran high, and lasted eight or nine hours. He then complained of severe pain in the head and back. I directed a mild cathartic of rhei to be taken that night, and promised to see him at commencement of the next fit. I found him shaking violently; no pulse perceptible at the wrist; ghastly expression of countenance, and very difficult breathing. I opened a vein in the arm, being guided by the old cicatrix (not being able to raise a vein sufficiently to distinguish it); and by persevering with frictions, I succeeded in half an hour in getting the blood to flow freely in a full stream, when the pulse became full and distinct, the rigors ceased entirely, skin became moist, and he expressed himself as feeling better than he did in the sweating stage of the previous paroxysm. No hot or sweating stage followed; and with the aid of a few ague pills taken the next day he went to his business the day after, feeling perfectly well.

Several other cases where the cold stage was comparatively light, have been treated on this plan with the same happy results, under my direction, and by myself. One case in particular, which was treated by a student of mine, is worthy of notice. A brother of his, aged sixteen, had labored under a tertian ague for two months without interruption, although large quantities of quinine had been used. A vein was opened on the first appearance of the chill (which I regard as important, as you thereby prevent the cold stage almost entirely, and get blood with greater ease); the symptoms were all relieved; no fever followed that day, and no recurrence of the disease has since taken place.

I will only add, in conclusion, that I do not entertain a doubt of the correctness of Doctor MacIntosh's views, in relation to the pathology and treatment of intermittent fever; and I am happy in having it in my power to offer in confirmation the foregoing cases. I regard the practice of blood-letting in the cold stage of intermittents, as the most important improvement in the practice of modern times; and notwithstanding the overbearing influence of authority, I believe the time is not far distant when it will become the established doctrine of the profession. I have extended the practice to the treatment of remittent fevers; and no longer, as formerly, wait until reaction is at its height before I resort to bleeding. I have repeatedly this season bled in our bilious remittent fevers, when the feet and hands were cold, pulse small and feeble, with the most happy results. One case in particular, where the attack was unusually violent, and threatening a fatal termination (two cases having terminated fatally in the neighborhood under similar circumstances in the course of three days), I bled to the extent of forty oz. in all, at three different times in the course of two hours, with relief to all the symptoms at each bleeding. The pulse rose under the last operation; the reaction which followed was trifling compared with what it is in ordinary cases of remittent fever. The subsequent practice consisted of five grs. of calomel at night, followed with a seidlitz powder in the morning, for four successive days, when the patient was dismissed cured.

LECTURES ON FORENSIC MEDICINE,

Delivered by Dr. Hay Graham, at the Westminster School of Medicine.

Abortion.

Gentlemen.—In this lecture I propose to treat of abortion willfully and criminally procured. Of all crimes this is, perhaps, the most difficult of proof, not only from the nature of the body to be submitted to our investigation, but also because the expelled fœtus, the *corpus delicti*, is frequently removed from sight, which may be accomplished when pregnancy is not far advanced without even exciting suspicion. Yet, under the

most suspicious circumstances, abortion may be the result of accident, of disease, or of bodily predisposition: thus, in most cases, the proof must ultimately rest on circumstantial evidence, which is sometimes the more easy to get at, as the woman generally has recourse to the assistance of others to accomplish the crime, which is perpetrated without her concurrence. For this reason by the laws of a neighboring state, a severer punishment is visited on the accomplices than on the wretched mother; for the villain who lends himself to such a wicked purpose deserves a double punishment, as he is likely to commit a double crime of murder, both on the guilty and unfortunate mother, as well as on the innocent fruit of her womb; and this, without having the mother's excuse, that remnant of virtue which consists in shame, to plead as an apology for his two-fold guilt.

Abortion is derived from the latin *abortus; ab*, from; and *orior*, to be born; it signifies a miscarriage; and, in our medico legal view of the subject, it is a miscarriage procured by art with a criminal intent.

If the fœtus or embryo is expelled before the end of the sixth week, the event is medically termed a miscarriage; but expelled or delivered between the sixth week and the end of the sixth month, it is medically termed an abortion, not the premature birth of a child. If delivered after that time, and much before the expiration of the nine calendar months, it is a premature child.

Quickening, as it is called, takes place about the sixteenth week; before that even, an attempt, "by administering to the mother poison or other noxious thing, or using any instrument or other means, with intent to procure the miscarriage," is only a misdemeanor transportable for not more than fourteen years, or thirteen years' imprisonment.

But after quickening such attempt is punishable capitally.

By the law of Moses it is enacted that where miscarriage takes place through violence, the judges shall regulate the degree of punishment according to the circumstances of the case; but should death ensue, then they are ordered to give "life for life."—Exodus, c. 4.

It would appear by the English law, that, as a woman cannot put in a plea in stay of execution unless the child has "quickened," so neither is the procuring abortion a crime previous to that indefinite period; because, according to our law, "life only begins as soon as the infant is able to stir in the mother's womb. For if a woman is quick with child, and, by a potion or otherwise, killeth it in her womb; or, if any one beat her, whereby the child dieth in her body, and she is delivered of a dead child, it is according to the modern law, merely a heinous misdemeanor." "But if the child be born alive, and afterwards die in consequence of the potion or beating, it will be murder; and of course those who, with a wicked intent, administered the potion, or advised the woman to take it, will be accessories before the fact, and subject to the same punishment as the principal."—*Blackstone*, vol. i. p. 129.

The crime of procuring abortion seems to be involved in much doubt and uncertainty, from the imperfect wording of the statute. For where the woman is quick with child, in which case the offence is a capital felony, there is no mention of using any instrument or other means whatever, but the crime is confined to administering any deadly poison, or other noxious and destructive substance or thing; while in the clause against the minor offence, the use of instruments or other means whatever is expressly included.

We have before pointed out the absurdity of the distinction between quick or not quick, since the child must be either dead or alive. Here there is an additional absurdity, for the very means by which the crime is most frequently perpetrated does not constitute any part of the capital offence; and, therefore, the most probable mode of committing the crime appears to be protected by the most penal clause. Thus, in the case of William Pizzi and Anne Cheney, the man was tried for attempting to procure abortion,

by giving her medicines which had no effect; and his having actually perpetrated the crime by mechanical violence was only brought forward as proving the intention with which the medicines were given."—*Fonblanque*, vol. iii. p. 91.

Miscarriage is frequently spontaneous, generally takes place about the third month, and often recurs at the same stated period during many successive pregnancies.

In the early months of pregnancy it is extremely difficult to ascertain whether or not miscarriage has taken place. In the more advanced stages of pregnancy the appearances are more or less the same as those after labor.

Before entering into the criminal history of abortion, it will be proper to make you acquainted with those causes which give rise to it in the course of nature, together with their *modus operandi*, or the mode of action by which they produce this effect. You will then be better enabled to judge of the physiological condition of the parts, and, sensible of the numerous difficulties with which it is surrounded, you will be the more cautious in forming your judgment, and avoid arriving at a premature or erroneous conclusion, when the life and reputation of a fellow-creature are at stake.

The causes of abortion are predisposing or constitutional, and exciting or accidental, and not unfrequently it takes place from a combination of both. But often the predisposition to abortion is so great, that it occurs without any exciting or accidental cause, and is then termed *spontaneous*. In some cases the most trifling accidental cause is sufficient to induce it, such as slight muscular exertion, an evanescent emotion of the mind, or even disagreeable odors, as the smell of a candle-snuff. In other cases the direct opposite is observed: thus Mauriceau makes mention of a woman in the seventh month of pregnancy, who, whilst escaping from a house on fire, attempted to slide down the sheets she had tied together; fear caused her to let go her hold, and she fell down from the third story upon the pavement. Her fore-arm was in consequence broken; but neither her excessive fear, nor yet such a severe fall, produced abortion.

The predisposing causes are sometimes peculiar to the mother, and sometimes to the fœtus. The first arise from a peculiar state of the uterus, or from that constitutional state of the mother which may communicate its influence either to the uterus or even to the product of conception. Amongst these causes may be classed the too great rigidity of the fibres of the uterus, so as not to admit of its dilatation; also the two great irritability or contractility of this organ; the debility and relaxation of the neck of the uterus; the atony of the uterus, whether idiopathic or symptomatic, as may arise from *fluor albus*, or from preceding difficult labors or abortions. These causes frequently induce abortions, which generally take place about the same period of pregnancy, and are hence termed *periodic*. Under this head may be ranged the chronic inflammation of the uterus, also cancer, carcinoma, fibrous tumors, polypi, uterine dropsy, the presence of several fœtuses, and consequently the too great dilatation of this organ.

Amongst the constitutional causes we must reckon such as take place in consequence of atmospheric changes, the only cause to which we can attribute those epidemic abortions which have been noticed from the days of Hippocrates downwards; a sanguine temperament; a plethora, and a predisposition to hemorrhagia, frequently independent of plethora; also an abundant and irregular flow of the menses; great debility; excessive nervous sensibility, or morbid irritability; a cachectic state of the body; syphilis, scurvy, hysteria, and other chronic diseases; malconformation of the spine and pelvis; an hereditary predisposition; also that peculiar habit of body induced by previous miscarriages, although arising from causes purely accidental. Late hours, and want of sleep, the want of nourishment, tight clothing, especially such as press on the abdomen, as tight laced stays, also belong to the class of predisposing causes.

Those predisposing causes, which relate to the product of conception, depend either

on the fœtus itself, or on the membranes or appendages belonging to it; these causes act either by occasioning the death of the fœtus, which thus becomes a foreign body, of which the uterus disembarrasses itself more or less speedily, or else by impeding its further growth, so that, no longer consuming a sufficient quantity of blood, a congestion takes place in the vessels of the uterus, from its redundancy, which either intercepts or retards the circulation. Hence we observe that abortion is frequently induced by such causes as the debility of the fœtus, its diseases, or its monstrous conformations; the feeble adherence of the placenta to the surface of the uterus, its insertion on the neck of this organ, its degenerating into a scirrhous, dydatic, aneurismatic, or varicose state; its atrophy, and its want of relative proportion to the size of the fœtus; the too great shortness, or the excessive length of the umbilical cord, especially when twisted round the neck or one of the limbs of the fœtus; its extreme tenuity; its withering away; its increase of volume from the presence of hydatids, or other tumors, knots or adhesions which impede the circulation; the tenuity of the membranes of the ovum; an accumulation of serous fluid between the chorion and the amnios; the too great deficiency, or the too great abundance of the amniotic fluid.

The exciting or accidental causes are so extremely numerous, that it is in vain to attempt to enumerate them. In fact, there is scarcely any circumstance in life, however trivial, that has not given rise to abortion. I may mention as causes, all acute diseases, as fevers, inflammations, and especially that of the uterus, diarrhœa, dysentery, colic, constipation, strangury, convulsions arising from hysteria, or from epilepsy; the passions of the mind, grief, rage, terror, and even excess of joy; violent pain; the impression of strong smells and odors: asphyxia; coitus; violent motion; straining and sudden jolts, such as happen in a carriage or on horseback, or whilst dancing; also the effects of violent laughing, loud cries, coughing, and vomiting; falls, blows on the loins or the abdomen; the use of drastic purgatives, emmenagogues, pediluvia, large bleedings, especially in the feet; convulsive motions of the fœtus; rupture of the umbilical cord, also of the membranes. All these are mentioned by the best authors on midwifery as causes of abortion.

It is generally supposed that the greater part of the accidental causes operated by producing a partial separation of the placenta, a greater degree of impetus or motion being communicated to it, in consequence of a sudden fall or jerk, than to the uterus itself: whenever this takes place, uterine hemorrhage must be the immediate result of such a cause. A jerk or compression of the uterus may also produce the immediate rupture of the umbilical cord, or of the membranes of the ovum. These accidental causes more frequently produce a congestion, which is shortly followed by hemorrhagia; and hence the separation of the placenta, which gives rise to the contractions of the uterus by the disturbance or disorder it creates in the exercise of its functions. It has further been remarked that abortion takes place more readily from such causes about the corresponding periods of menstruation than at any other epoch. Some of these causes act by exciting spasmodic contractions of the fibres, which are communicated by sympathy to the uterus. Others again direct their influence immediately on the fœtus; thus frequently violent affections of the mind are said to be immediately followed by convulsive motions of the fœtus; ending in its death.

Having now entered pretty fully into the history of abortion arising from natural causes, we will consider it in a criminal point of view; we will endeavor to distinguish whether it has been procured by art with a criminal motive, or induced by any of the causes enumerated.

We have the testimony of Benjamine Bell and Dr Rush, that "mercury may be given

in sufficient quantities at every period of pregnancy for curing every symptom of syphilis without doing the least injury either to the mother or child. Dr. J. Bech relates the case of a female, who was eight months gone with child, and attacked with a violent inflammation of the lungs. After the usual depleting medicines it was found advisable to have recourse to mercury. She was accordingly put upon the use of small doses of calomel and James's powder. In a few days salivation came on, after which all the symptoms of her pulmonary complaint speedily vanished, and the patient was restored to her usual health. She was afterwards delivered of a living child at the full period."—Bech, p. 147.

The means employed to procure abortion are of two kinds, viz. such as are direct, and such as are indirect; under the first may be classed all such causes as tend to diminish the nourishment of the fœtus, and thus produce starvation or inanition; such as bleeding and purgatives, those of a drastic nature also act by sympathy, increasing the vermicular action of the intestines to a violent degree, and excite the contractility of the uterus. Under the second head may be classed all those causes which have a tendency to interrupt the communication between the fœtus and the mother, as violent mechanical means, as dancing, emetics, sternutatories, and such like, also such as produce a determination of blood toward the uterus, or neighboring parts. But nature generally interposes her salutary resistance to even the most energetic of these deleterious expedients, and, careful to perpetuate the species, casts the Ægis of her protection over the fœtus, and renders them innocuous to the offspring, except at the price of the life of the guilty mother, or at the permanent loss of her health.

The means usually employed with a criminal intent are bleeding, especially in the feet, leeches applied to the vulva, the hip-bath very hot, drastic purgatives and emmenagogues, stimulating diuretics, as rue or savin, also cantharides and many other remedies, to which vulgar belief has attached much efficacy. Fortunately few or none of these means have the power of producing miscarriage.

The use of these means to procure abortion must, in influencing our judgment, depend much on circumstantial evidence, since they may be used as remedial for other diseases, and, notwithstanding the popular belief to the contrary, seldom induce abortion. Mauriceau mentions that a pregnant woman was bled ten times in the foot without causing abortion; and another, where miscarriage did not take place, notwithstanding many copious bleedings both of the arm and foot, and the frequent repetition of emetics, which were prescribed in a case of apoplexy. Drastic purgatives, administered, or taken, with the criminal intent of procuring abortion, have been known to cause severe hypercatharsis, peritonitis, enteritis, convulsions, and frequently death, without causing the expulsion of the fœtus. Those emmenagogues and other drugs, calculated to produce either congestion in the vessels of the uterus, or to excite the contraction of the fibres of this organ, are all of them extremely acrid, and their employment frequently occasions inflammation of the uterus, or of the ovaries and other viscera, leaving behind a train of symptoms, which, whether they have procured abortion or not, are sure to entail on the wretched and guilty mother a painful and miserable existence.

The Juniperus Sabina, or savin, has in popular belief, obtained a reputation for its qualities in expelling the fruit of the womb. This plant is a poison, which, on distillation, yields an essential oil, possessing all the qualities of the plant in a concentrated state. Fodere relates the case of a poor, cachectic, imbecile girl. In the seventh month of pregnancy she took a cupful of wine, in which her seducer had mixed a large dose of savin. She became so ill, that a report was made to the magistrate, who ordered Fodere to visit her. The patient stated to him, that, on taking the drug, she had felt a burning heat, accompanied with hiccough and vomiting. This was followed by a violent fever which con-

tinued for fifteen days. By the use of proper refrigerant remedies the girl recovered, and, at the end of two months, was safely delivered of a healthy child.—Fodere, v. iv. p. 431.

Dr. Christison relates another case, where a female applied to a pedlar to supply her with the means of getting rid of her pregnancy; and, under his directions, appeared to have taken a large quantity of a strong infusion of savin leaves on a Friday morning, and again next morning. A very imperfect account was procured of the symptoms as no medical man witnessed them; but it was ascertained that she had violent pains in the belly and distressing strangury. On the Sunday afternoon she miscarried, and on the ensuing Thursday she died. The body was examined on the next day; there was found extensive peritoneal inflammation; the uterus had all the signs of recent delivery; the inside of the stomach was of a red tint, chequered with patches of florid extravasation, and its contents of a greenish color, owing to the presence of a vegetable powder as was proved by separating and examining it with a microscope.

It does not appear that either savin, spurred rye, or any other drug, exercises a specific action on the uterus, so as to induce premature labor, but that in such cases abortion is merely a secondary effect of the shock given to the system, from the exhibition of powerful medicines in large doses.

Fodere relates a case, of which he was an eye-witness. A cook-maid finding herself pregnant, and being no longer able to conceal it, procured half an ounce of powdered cantharides, which she mixed with an ounce of sulphate of magnesia, and swallowed them in order to produce abortion. Some hours after she was seized with violent colic, and, in the most horrible pain, brought forth a living child about the sixth month, nothing could afford her relief, and she died the same night.

In the case of Mrs. Robert Turner, one of the persons poisoned by Eliza Fenning, notwithstanding the long and violent sufferings she had experienced during her pregnancy, she brought forth a living child at the natural period.

In consequence of the uncertainty of drugs, recourse was had at a very early period to more violent mechanical means, especially such as the dilatation of the os uteri, or the introduction of a bodkin or some pointed instrument, by which the fœtus was destroyed. When such means have been employed, we may discover their marks, either on the fœtus or on the membranes, or on the organs of generation of the female.

At Durham Assizes, in 1781, Margaret Tinchler was indicted for the murder of Jane Parkinson, by inserting wooden skewers into her womb, for the purpose of producing abortion. It appeared on dissection that there were two holes in a gangrenous condition which these extraneous bodies had occasioned, and to which the deceased had fallen a victim.

On the trial of Charles Angus for the murder of Miss Burns, allusion is made to an instrument, described as a silver tube with a slide, at the end of which was a dart with three points. Guy Petin makes mention of a midwife who was hanged at Paris for occasioning the death of a lady by an attempt to procure abortion by this method. On her trial, she said she had frequently practised it with success; but, in this case, the instrument had pierced the body of the uterus instead of passing through the os tincæ.

Fodere, in speaking of this instrument, expresses himself with the warmth of honest indignation. "I have heard," says he, "of those who have made use of this infernal machine to procure abortion, but they have been reduced to the very verge of the tomb, and have never recovered their former health. Thus the crime, in some measure, does not remain unpunished, whatever may be the means employed to commit it; and thus those monsters who prostitute their knowledge and their services to commit so deep a crime are *doubly* assassins, and therefore deserve a double punishment."

Blows on the abdomen and loins are not an unfrequent cause of abortion; yet, even when such is the case, it is for judicial consideration whether they have been sufficiently severe to be the sole cause, whether there might not have been a predisposition, or some imprudence, or a want of proper precaution on the part of the female. We should then inquire whether such blows were inflicted with a criminal intent, or whether the woman had provoked the blows, and also whether the accused knew of her pregnancy. Two cases given by Bellor very fully illustrate these questions. A young woman, between the third and fourth month of pregnancy, had received several kicks and blows with a fist. Immediately after this brutal treatment she was put to bed, bled, and took various remedies given her by a surgeon. The hemorrhage, however, continued, with pains in the loins and abdomen, and on the next day she had an abortion. Bellor, on being examined, declared that the accident was owing to the kicks and bruises she had received. In the other case, a female brought forth a dead fœtus, about the fourth month, two days after a quarrel with her husband, in which he said he had struck her. Instead, however, of lying down or at least keeping quiet, she walked a league that day, and on the next a quarter of a league, to a place where she was to assist in bringing in the harvest; nor was it until her arrival there that she was forced to go to bed. In this case Bellor decides that it is very possible had she remained quiet and called for proper assistance, the abortion would not have occurred, particularly as the violence used was only that of throwing her down in the street. Dr. Gordon Smith makes mention of a man who was executed at Stafford in 1811, for the murder of his wife. She was in the pregnant state, and he had attempted to induce abortion in the most violent manner, by elbowing her in bed, rolling over her, and other violent means, in which he succeeded, not only in procuring abortion, but, along with it, the death of the unfortunate woman.—(G. Smith, 325.)

Orfila, amongst his reports, gives the following case of abortion, which may be useful in directing your attention when called on to make investigations of this nature. A young woman, aged 17, had been delivered the preceding evening of a male child of about six months. She positively asserted that she had avoided every cause calculated to produce a miscarriage, as bleeding, leeches, hot baths, violent exercise, irritating substances, emetics, drastic purgatives, &c. On examining the room, we found in a cupboard two packets containing a mixture of rue and savin, at which she appeared perfectly surprised, and assured me she never made use of any such medicines. We then proceeded to examine her person, which presented all the marks of recent delivery. On the interior surface of the labia there were about a dozen triangular bites in a state of ecchymosis, proving beyond doubt that an equal number of leeches had been recently applied. In addition to this, there were slight marks of the lancet from recent bleedings in the leg and arm. In other respects the girl suffered the most excruciating torments in the hypogastric region; the skin was parched and burning hot, and the pulse extremely frequent. The body appeared that of an infant of about six months. We remarked in that portion of the skin of the cranium which corresponded with the middle of the sagittal suture, an opening about the third of a line in width, which was ecchymosed all round. In carefully dissecting the wounded parts, it was easy to trace the wound through the membranous commissure which united the parietal bones and the dura mater into the brain. The superior longitudinal sinus was open, and a large quantity of blood, principally in a liquid state, was effused on the surface of the brain and between the two hemispheres. In other respects the cerebrum, cerebellum, and medulla spinalis had not suffered any injury; the thorax was flat; the lungs of a small volume, of a red color, and did not crepitate on pressure, and sunk readily to the bottom of the water, whether put in whole or cut into pieces. The diaphagm was drawn upwards towards the thorax, and the abdominal viscera appeared in a natural state. The placenta had been removed.

From the above facts, Orfila deduces the following conclusions :—1st, that the young woman had been lately brought to bed ; 2dly, that the fœtus, about six months old and well formed, was still-born; 3dly, that there was every reason to believe that it would have lived had it continued to be developed ; 4thly, that it had been wounded in the sagittal suture by a pointed instrument, which had penetrated sufficiently into the interior of the cranium to lay open the superior longitudinal sinus ; 5thly, that this wound had been made during the lifetime of the infant ; 6thly, that to this cause the death of the infant must be attributed ; it is extremely probably that this girl, whose assertions were evidently false, had pierced, or caused to be pierced, the cranium of the child whilst in utero, after having in vain endeavored to procure abortion by means of savin, rue, and blood letting; 8thly, it would have been possible to establish the fact had the membranes not been removed, and to have ascertained whether they had been injured at the part corresponding to the sagittal suture.

I shall now lay down a few simple rules for your guidance when called upon to deliver your opinion on a case of suspected abortion. In the first place, it is necessary to examine whether the substance expelled from the uterus is really a fœtus or some other body, as a mole or hydatids ; and if a fœtus, to ascertain what may be its probable age. Then to examine if the body has any mark of violence ; this is especially necessary should it be suspected abortion has been procured by mechanical means, as, for example, by the introduction of any sharp pointed body into the uterus. We should then endeavor to find out the probable length of time the fœtus may have been dead previous to its expulsion ; this may be learnt from the changes it has undergone, as the sinking of the fontanelles without any marks of external violence, the peeling off of the epidermis in different places, the livid color of the skin, the withering and want of tenacity in the umbilical cord, the greater or less degree of swelling of the whole body and, above all, by the putrid smell. The body should be carefully washed, or rather immersed, in a large vessel of water, which in a short time will separate any clots of blood that may be adhering to it ; should this not be sufficient, they may be detached by directing a stream of water upon them from a small syringe.

In respect to the woman it is necessary to ascertain whether she exhibits any traces of abortion, and to inquire into the circumstances which have preceded the event. Whether she has been exposed to any of those accidental causes which might give rise to it, or whether there has been any criminal intention on her part to destroy the life of the offspring ; or whether it has been had recourse to with a view to save the life of the mother in consequence of some mal-conformation of the parts. If she has concealed her pregnancy, if she has endeavored to acquire any knowledge of those means by which abortion might be procured, or if she has made any preparations or arrangements for her accouchement.

Should the death of the mother take place in consequence of the abortion, the body ought to be most carefully examined, especially the uterus, and any marks of violence which may be observed ought at the time to be noted down. These should be compared with any corresponding marks on the fœtus or lesion of the membranes. These investigations, if judiciously conducted, would greatly aid the ends of justice, and might discover the real authors or accomplices of the crime, should any such exist.

I shall conclude this lecture by quoting the observation of Dr. W. Hunter.

It was the opinion of this celebrated man, " that the crime of procuring abortion is not of such frequent occurrence as many suppose. The wish to preserve her character naturally induces a woman to conceal her situation ; and not being certain how far her pregnancy has advanced, she may be seized with pains, which she mistakes for griping in the bowels (which the first pains of labor sometimes greatly resemble), and, going to the

privy, be there delivered; the child may be still-born, or it may be killed by falling on the ground, or die from hemorrhage, or be drowned in the profuse discharge of the mother, who, from fear, pain, or insensibility, is unable to assist it. In such a case it would answer no purpose that the woman should divulge her secret; she would naturally endeavor to preserve her character, and hide every appearance of what had happened as well as she could; yet, if discovery should be made, the circumstances of concealment would be set down as a proof of her guilt." We ought, therefore, to be deliberate in forming our judgment, and never suffer that judgment to be warped by popular clamor, or yet to be too hastly formed by the *prima facie* appearance of the case.

REMARKS ON ENDERMIC MEDICATION.

By G. G. Sigmond M. D. Physician to the Charing Cross Hospital.

Read before the Medico-Botanical Society, November 11, 1834.

It is usual at the commencement of each session of this Society for one of its officers to lay before you a short sketch of the internal arrangements and economy of this institution, but I do not intend to follow this plan to night, I shall content myself with stating that the affairs are in the most flourishing condition, and that when I was in Germany, I saw the noble President (Earl Stanhope) who continues to take the most lively interest in its well being. I shall in preference, direct your attention to such improvements as have been made in the healing art during the recess, and point out such paths as may, with greatest advantage, be followed in the prosecution of the great object we have in view, the advancement of medical science. In pursuance of this plan, I have ventured to offer to your consideration a subject of very deep importance, which, although it has not entirely escaped the attention of the enlightened men who cultivate and adorn our profession, has not, as yet, obtained for itself that system of inquiry and experiment which it deserves, and which amongst our continental brethren, has justly been bestowed upon it. It is true that our periodical publications contain occasional papers and remarks on the subject, but there exists no proof that much consideration has yet been given to the introduction of medicine into the system through the medium of the skin, and producing general effects through the external surface.

The continental medical men have considered cutaneous absorption, or imbibition, under two heads; to the first, which consists in the simple rubbing in through the skin of medicinal substances, they have applied the term iatraleptic medicine; to the second they have given the name of endermic, and this consists in the removal of the epidermis, by such means as will not produce any structural change in the subjacent tissue, and then the introduction of a remedial agent through deluded surface; these two systems of cutaneous medication have been carried to a very great extent.

Previous to the consideration of these two methods, let me recall to your recollection the nature of the epidermis, or scarf-skin, and the relation it holds with regard to the rest of the system. We find that the whole surface of the skin is covered by a dry, scaly, transparent membrane, thin in most parts, but in others, where considerable pressure is exerted, thick, hard, and callous. The greater proportion of organized bodies is supplied with this superficial covering, which protects the subjacent tissues from the action of external agents; it is this that prevents the admission of all substances to the parts beneath, and that, under ordinary circumstances, enables us to come into contact with all bodies by which we are surrounded, and, in most instances, to resist the absorption of poisonous matter. When destroyed, as is the case in burning, blistering after various diseases, such as scarlet fever, by the action of cold air, or by the direct rays of the sun, it is reproduced with wonderful rapidity, which appears an indication of the important

function it has to perform. How it is formed we are, as yet, unable to judge, for neither vessels nor nerves are discernible; the most minute examination of its structure has only exhibited to us that there are innumerable quantities of lamellæ or scales, which lie one upon the other, in much the same manner as do the tiles on the roof of the house. This covering of the body resists putrefaction in the most extraordinary degree, and even after the greater part of the mortal frame has mouldered into dust, it has been found unchanged, and the part of the body to which it belonged may be ascertained.

Leuwenhoeck asserts that there are an immense number of small perforations, the terminations of exhalant vessels; this, Blumenbach denies. M. Chevalier, employing a lens magnifying 140 times, could not discover any except where hairs grew, or in the situation of the sabaceous glands, but the velamina, or scales he observed, which seem to transmit a fluid, as through bibulous paper; he describes them as of great tenuity, of a follicular appearance, separated from each other by rather thicker bands. It is from these that the excrementitious particles which have neither been taken up by the kidneys, nor carried off by the intestinal canal, and which would stimulate the blood too much are carried off. That which they throw out is in the form of an insensible perspiration, but when increased in quantity it is called sweat. These pores, as they have been called, are most evident upon the palms of the hands, the soles of the feet, the nose, behind the ears, and on the external parts of generation. These vessels distributed over the whole surface of the body, have a most powerful sympathy and action upon the mucous membrane that lines the whole cavity of the great intestinal canal from one end to the other. The easiest experiments will prove that those pores are perpetually exhaling an insensible perspiration; a dry, clean polished surface, such, for instance, as a mirror held near the naked body, will, especially in warm weather, be quickly sullied. A glassful of cold water held near the naked arm will have its surface dimmed by the vapors which exhale becoming condensed by the coldness of the exterior surface of the glass. If the arm be placed within a long glass tube, not only will the external surface become sullied, but, if the limb be retained there for a sufficient length of time, streaks of moisture will be seen trickling down its sides.

This perspiration is brought by minute arterial tubes to the surface of the skin, and, as long as the pores are open, it escapes, but when these minute pores, which, as I have observed, are scarcely visible by the aid of the most powerful microscope, are closed, various vesicles are raised. This may be illustrated by the fact that warm water injected into the artery of the dead subject will reach the external surface of the skin, but being stopped by the epidermis, the exhalants of which are closed after death, it will raise it into small vesicles.

Beneath this lies the true skin, made up of a close cellular texture, into which myriads of capillary tubes, both venous and arterial, enter. They form a vascular net-work over the whole surface of the cutis vera; their numbers defy all calculation. These vessels become rapidly injected with blood, as is seen in the blush, in the glow of excitement, after coming out of the cold-bath, after exercise, in various febrile affections, and in the different exanthemata or rashes. It is by means of these vessels that external medicines conveyed or carried into the system. The cutis vera is endowed with the most exquisite sensation; there are an immense number of papillæ, the extremities of nerves, these are more distinct in the fingers and lips than elsewhere, and hence the sense of touch is quicker and more distinct in these parts. The perspirable matter, constantly gliding over these minute papillæ, keeps them in a constant state of moisture, and enables them to preserve the delicacy of their function, whilst the insensible epidermis, being interposed between the object touched and the true skin, prevents too acute sensation, which occurs when it is rubbed off.

In a lecture delivered by Magendie, and published in the Lancet, we find that he performed an experiment before the whole of his class, demonstrating that as long as the epidermis is in a sound and healthy state, cutaneous absorption does not take place, unless friction be employed. He placed with the glass tube a few drops of prussic acid on the integuments of a rabbit, and the poison did not produce any appreciable effect. This is at variance with the experiments of others. M. Emmett tells us, that he found the essential oil of bitter almonds, applied to the uninjured skin of a rabbit, produce the usual symptoms, and death; and he adds, that the peculiar odor of the poison was very perceptible in the deep-seated muscles of the back. The absorption of lead, in whatever form it comes into contact with the skin, will produce colic, or the paralysing effects which it causes when taken internally, without any apparent action upon, or destruction of, the epidermis. Arsenic when applied to the skin of the human subject, may produce all the ordinary symptoms which attend its internal administration, and indeed, it will act with equal violence and rapidity; the stomach will exhibit the same signs of inflammation. Mercury will also cause its peculiar effects when applied to the skin. Corrosive sublimate has been known to excite, through the sound skin, an action as violent as through the alimentary canal; salivation, and even death, have been known to follow its application. Vapors can be transmitted through the skin, and Magendie lately demonstrated the fact to his class. He enclosed a rabbit in a large glass, the head remaining outside; the vapor of the concentrated acid was introduced into the glass, and the effects were manifest in about two minutes and a half; it died as quickly as if the poison had been placed on the skin or tongue. This led to an idea, that a portion may have escaped from the bottle, and been introduced into the system by the lungs.

M. Nysten found that tetanus and death were the result of leaving sulphuretted hydrogen gas for some time in contact with the skin; and Buchner on one occasion remarked, that, whilst preparing cyanogen gas, the forefinger, which was exposed to the bubbles, as they escaped, became suddenly benumbed, and that this effect was attended with a singular feeling of pressure and contraction in the joints of the thumb and elbow. We must at any rate, all feel convinced, that substances, if in contact for any length of time with the epidermis, and more especially when aided either by animal or artificial heat, will be imbibed or absorbed. Some of them may act by mechanical destruction of the epidermis, or by some alteration in its structure. There are, besides, certain diseased states of the skin, in which absorption takes place very rapidly; thus, an infusion of tobacco applied to the head for the cure of tinea capitis has been known to produce all the bad effects which have resulted from the injudicious administration of tobacco.

Few medicines have been more fairly tried as an iatraleptic, in France, than digitalis in the cure of dropsy, and it has answered the most sanguine expectations that had been formed of its success. Dr. Chrestien, to whom we are most indebted for his experiments, has given us a fair narration of the cases which were successfully treated, and those in which it has failed. He is borne out in his practice by M. Cros Rogery, de St. Geniez, by Bernard de Beziers, by Blavet de Montbozin, by Rouchy de Montpelier, and Archbold Aspold. Under M. Rogery's treatment by the friction with digitalis, a case of dropsy of the abdomen, which followed upon a repelled eruption, was cured; under Dr. Chrestien, dropsy, the sequela of scarlatina, in a boy of five years of age, disappeared; and dropsies consequent on visceral inflammation, and on splenitis after intermittent fever, have yeilded to friction upon the hypogastrium with tincture of digitalis, three times in the course of the day. The tincture is prepared by macerating for a quarter of an hour, an ounce of the leaves in three of alcohol. The method employed by Brera, which was the first introduced, and was therefore somewhat rude, consisted in macerating the digitalis in saliva, and then applying it by friction to the abdomen. In the only cases (two in num-

ber) in which I have had an opportunity of seeing it employed, I cannot say that I have seen any permanent benefit; but they have not been cases in which a favorable result could be fairly expected, as they have been desperate cases, in which all other remedies had failed. In one of these, which I have reason to believe is caused by an aneurism of the cœliac artery, and where the effusion is most rapid after the operation of paracentesis, the kidneys have lost almost all power of secretion; but, during the two first days of friction with the tincture of digitalis, prepared according to Dr. Chrestien's formula, they were evidently stimulated into some action, but soon returned to their former torpid state.

The atropa belladonna has been tried as an iatraleptic, by Dr. Gouvion and Carre, in the most painful cases of neuralgia; and in rheumatism it has been found eminently successful, when its extract has been rubbed upon the abdomen, upon the sternum, or the dorsal vertebræ. In cases where, during labor, spasdomic contraction of the neck of the uterus has reisted the use of the lancet, Mad. la Chapelle says that the extract of belladonna assisted by warm baths and emollient fomentations, rubbed upon the region of the uterus, have answered the most sanguine wishes of the accoucheur. In the reduction of hernia it has likewise been of great and important service; and also in retention of urine occasioned by muscular spasms about the neck of the bladder. M. Chevalier has published some interesting cases of spasmodic stricture cured by a bougie, on which belladonna was put. Castor oil rubbed over the abdomen produces the same effect as if taken internally, and more especially if aided by the use of the warm bath. Obstinate constipation has yielded to this remedy; and where such violent and constant sickness has been present as to preclude the possibility of the internal administration of the oil, it has produced all its good effects, without adding to the distressing state in which the stomach is found. I have seen by these means an action produced upon the bowels within a quarter of an hour after the friction had been employed, immediately on the patient leaving a bath of the temperature of 98°, where calomel, jalap, neutral salts, and lavements, had failed to relieve the intestinal canal, and where constant vomiting had commenced, and all idea of internal remedies had necessarily been abandoned. Croton oil likewise produces a complete relief of the contents of the bowels, when employed in a similar manner, and more particularly when combined with castor oil, as its general effects; when employed alone externally, are the production of a number of small red pimples, which become pustules resembling those of the small-pox, or those which are produced by tartar emetics; and experiments have been made upon upwards of thirty patients, which prove its efficacy as a counter-irritant. If four or five drops are applied by friction to the abdomen, combined with an ounce of oil of sweet almonds, at the end of from thirty to fifty hours the pustules are developed, which continue to increase for four or five days, and then dry up, or the skin becomes covered with scabs, which desquamate slowly. That similar effects are produced by tartarized antimony, said to have been introduced by Jenner, others by Hanway, and others by Autenrieth, formed into an ointment, is so well known and so generally employed, with the greatest success, in this country, that it is quite unnecessary to dwell upon it.

Camphor has been very highly recommended as an external application by M. Malgaigne He has, in several cases of erysipelas used the powder of camphor with the greatest success. He has also tried it with some success in cerebral affections; he advises it to be employed with some moisture, so as to produce, by evaporation, a long continued and intense cold, and in this way it supplies the place of ice; in this form he has also used it in peritonitis, in which it alleviated the heat which is so much complained of. In hemorrhages he has also found its employment of the greatest value; he considers it to *act as the volatile oils*, or as either by evaporation, and thinks it the most certain and most

powerful of refrigerants. A case has lately appeared in one of the French journals, in which it cured a case of dumbness, consequent on paralysis, when applied by friction upon the upper part of the skull-cap. The powers of veratria have been lately the subject of examination in this country, and an essay has been published on its merits.

The chloride of gold and sodium have been successfully employed by Chrestien and by Puche, both as antisyphilitics and as antimercurials.

Iodine has fully borne out the expectations that had been formed of its power to discuss anomalous tumors, and glandular enlargements. The deuto ioduret of mercury has been used in a mild form, 15 grs. to ℥ij. of lard, and xx. drops of essence of bergamot, by M. Biett, in various cutaneous eruptions, but in glandular enlargements he has applied a more caustic preparation, namely a dram to an ℥j. of oil of almonds; this is partly absorbed and partly desiccated. M. Maury has seen two cases of a sudden salivation come on two hours after its application. On the third or fourth employment of this remedy to indolent scrofulous swellings, pain and inflammation are produced, and absorption and diminution of the engorgements become perceptible. In some instances this is accompanied by fever, colic, and diarrhœa, but these seldom prove in any way alarming. The deuto ioduret of mercury has been found serviceable in similar cases. The cyanuret of potash has relieved the pain in neuralgia, and proved an effectual remedy. Dr. Short has had occasion to speak in most favorable terms of the marchantia hemispherica employed as a poultice in the cure of dropsy. Opium and its constituent morphine have been successfully employed for the relief of various painful disorders.

An instance, in which its external application proved injurious, as recorded by Dr. Chrestien, translated from the Journal de Chimie Medicale, vol. vii :—A child two months old, very nearly perished in consequence of a cerate, containing 15 drops of laudanum, having been kept for 24 hours on a slight excoriation, produced by a fold of the skin. When the cause of the illness was discovered, it had been for some hours almost completely insensible, with a slow obscure pulse, and occasional convulsions. It also appears from the following instance, that, in certain diseased states of the integuments, it may prove fatal. A soldier, affected with erysipelas of the leg, had a linseed poultice applied, which his surgeon ordered to be sprinkled with 15 drops of laudanum; next morning the patient was found in a state of deep sopor, and affected with convulsive twitches of the muscles of the face and limbs, and in no long time he expired. His soporose state turned the surgeon's attention to the poultice, which he found colored yellow and smelling strongly of opium, and, on removing it, found that it was completely soaked with laudanum, which the attendant had carelessly poured on it to the extent of an ounce. The patient died notwithstanding all the remedies which his state called for: and the viscera were found quite healthy, but in many places the blood had a strong odor of opium.

Endermic medicine consists in the removal of the epidermis by such means as cannot produce any structural change in the subjacent tissue, and then the application of a remedial agent to the surface thus denuded. Various are the modes which have been employed to expose the part on which remedies are to act; the most common practice is to apply a blister of cantharides; others prefer liquid ammonia. Boiling water has been tried, but it changes the natural structure of the skin; phosphorus has similar effect: various other vesications have been employed, but they have been generally found to produce some irritation of the exposed surface, by which means the transmission of blood through the capillary vessels has been impeded, and thus the expected influence has been lost; the epidermis should be cut with a pair of scissors, and beneath it is to be introduced the remedial agent: if it is an insoluble substance it is to be sprinkled on the exposed

surface; if it is a fluid it may be applied by moistening a small piece of lint with it. The seton is another mode by which it may be introduced, but great care and caution are requisite. Magendie gives us an instance of its bad effects in an old *cure*, who was poisoned in this manner by the introduction of a morsel of strychine into a seton. The effects, in many instances, are exhibited in a very brief space of time, and the rapidity with which they are absorbed is such as to demand the greatest attention, more particularly as very minute doses will operate very readily, so much so, that very serious results have followed the application of arsenic and other remedies to denuded surfaces.

The French adopt the following plan:—Where an instantaneous blister is necessary, cut a piece of cotton, of linen, or of paper, of the size and shape for which it may be required; immerse this in spirits of wine, in strong brandy, or in eau de Cologne, lay it on the surface to be blistered, wiping the edges, so that none of the fluid may moisten the surrounding parts; apply a lighted candle rapidly over the whole surface, that it may all be burnt immediately. The ignition is exceedingly quick, and the cuticle will be found separable from the subjacent cutis.

Quinine, as an endermic remedy, has been tried with great success in the cure of intermittent fever. M. Martin published, in the Archives Generales, an essay on this subject. He found that thus introduced into the system even in very small quantities it arrested the progress of the disease. M. Lambert next tried it, and succeeded, and the practice has now become general. If a blister be applied to one of the lower extremities, and when the skin be sufficiently raised a very small quantity of the sulphate of quinine be applied, in about ten minutes a sensation of gentle heat will be perceived in the limb, ascending to the back, and gradually diffused over the whole system. The hot fit comes on before its usual period, and the whole of the paroxysm is shortened. Even the introduction of ten grains has been found sufficient to arrest the progress of an ague. Care must be taken to reduce the quinine to a very fine powder, and to incorporate it with simple cerate or some greasy matter, for without this a high degree of irritation will be produced. Dr. Stokes tells us, that one of the most severe and troublesome forms of ulceration he had witnessed for a long time, occurred in a case in which quinine had been applied to a blistered surface. Over the whole extent of skin to which it had been applied numerous ulcerations took place, which resisted, for the space of six weeks, every attempt to heal them. It appears that quinine is one of the most valuable of the endermic remedies, for it can be introduced where gastric irritation prevents its internal administration; it acts more quickly than through the stomach, and small quantities only are required.

Some of the narcotic medicines have been employed most beneficially in the endermic way. M. Lesieur, who published a treatise upon the "Nouvelle Medication par la voie de la Peau," relates seventeen cases in which he tried the acetate of morphine at the Hospital Cochin and the Bicetre; of these four were chronic catarrhal affections which were quickly relieved, and soon cured by the application of acetate of morphine to a blistered surface; half a grain, gradually increased to two grains, was introduced; this was continued for a month, and whenever the treatment was intermitted the symptoms returned. Two cases of phthisis pulmonalis were relieved, but the dose was necessarily smaller. Pleurodynia, which resisted leeches, blisters, and other remedies, was thus relieved; a neuralgic affection of the temple was cured by the same means. A very interesting case occurred at La Pitie, in February, 1826, the details of which are to be found in the July number of the Medico-Chirurgical Review, condensed from the Archives Generales de Medecine. It was one of those gastralgic affections, which similitate gastritis of a chronic kind, attended with perpetual vomiting, and in which no internal remedy could be employed. M. Lambert applied gr. ss. of acetate of morphine to *the blistered* surface; in a few minutes the vomiting ceased, as if by magic, and the

patient passed a better night than she had done for some time. The next day the process was repeated, and the patient slept the whole of the day; the acetate of morphine was gradually increased, until at length food was retained, and a cure effected. M. Bally, in the Memoires de l'Academie Royale de la Medecine, details its effects on rheumatisms, lumbago, and sciatica, and he states that three cases of tetanus were treated by it with success; one was traumatic, the second produced by strychnine, and the third by fright.

M. Magistel has made public the happy result of his employment of acetate of morphia in hemicrania. Dr. Stokes of Dublin, has been successful in two cases of intermittent hemicrania, which soon yielded to this treatment.

M. Bally has employed strychnine in this manner with considerable success. Of two men affected with paralysis of the hands, one was evidently cured by the application of a grain to a grain and a half of strychnine daily to the raw surface produced by a blister; the second recovered the use of one hand, and nearly recovered that of the other, and a third paraplegic patient was able to walk. M. Lesieur has applied powdered strychnine, one-sixth of a grain, to the blistered surface for hemiplegia; when the quantity was increased to two grains, a paroxysm of tetanus supervened, which was dissipated by the substitution of acetate of morphine for the strychnine.

Mr. Foote tells me that he has had, at the Royal Westminster Ophthalmic Hospital, an opportunity of seeing amaurosis treated by strychnine endermically employed; a small blister was applied to the temple, and the epidermis removed, after which a quarter of a grain of the alkali was sprinkled on the sore; the dose was gradually raised to a grain: during its exhibition some of the peculiar symptoms attendant on strychnine became evident, namely, spasmodic twitchings, &c. In one or two cases it appeared to do good; vision certainly improved, but it was not pursued far enough to effect a cure; of course the danger attendant upon the employment of larger doses would naturally prevent the full use of this active substance, more particularly when the fact of the death of Majendie's cure by a morsel of strychnine endermically introduced is so well known. Very few purgatives have as yet been tried according to this method, but it has been found that tincture of aloes, applied to a denuded surface, will act upon the bowels quite as copiously as if taken internally, and many of this class of medicines act with a rapidity quite equal to that celerity with which the bowels act. It has been known that ʒij. of colocynth, or bitter apple, applied to the wound of a dog, has destroyed it with great rapidity. The necessity for the administration of endermic purgatives has not yet arisen, and therefore they have been less employed than the narcotics, from which so much benefit has been derived. Musk, belladonna, datura stramonium, hyoscyamus, have been all applied in neuralgia, and with evident success; and the names of Bloquiet, Piorry, and Trosseau, are sufficient testimonies of the truth of the power of these remedies.

The advantages that result from the endermic mode of treatment of disease, will be found in many cases so important, that we may expect great results from it; yet again there will be very many instances in which it will prove unsuccessful; where diseased skin exists, where there is a languor in the capillary circulation, where there is a determination to the external tissues of the body, where sudorifics have been much employed, or where the kidneys have much influence upon the system, we can expect to derive little or no advantage from it. Where, on the other hand, the stomach and intestinal canal suffer from inflammatory action, or where the nervous influence has been suspended by the action of narcotic substances, where gastro-enteric irritation exists, we may, according to the nature of the disease, the habits of the individuals, and the properties of the medicinal agent we wish to introduce, find that we have gained an im-

portant mode of action upon the human body, which will serve at any rate as an auxiliary and sometimes as a resource when we have already exhausted all the means which long experience has placed in our hands. Like every other discovery, it will be a long time before it arrives at perfection; many failures will necessarily happen, but by directing steady and careful observations to all the phenomena that may present themselves, we shall at last attain the great object of our research,—the power to do good. It is incumbent on the medical man to scrutinize with anxious care every new plan that may be proposed for the alleviation of disease or for the prolongation of life; although many may be offered, which, upon strict examination and cautious experiments, are found little adapted for the great objects he has in view, he must always bear in mind that from unsuccessful researches he attains the great end of knowledge,—truth; and that although he may be baffled in the object of his inquiry, yet that every fresh step he takes advances the progress of science. In inquiry into a new mode by which medicine may be introduced into the system, we must be well aware that at the first onset many discrepancies may be visible, many mistakes may be made, and many difficulties will present themselves, which can only be surmounted by reasoning founded upon experiment. We are not to expect that the new system will be found superior to the others that have already gained general estimation from their excellence, nor do we vainly expect that every malady will yield to a new treatment; all that we wish is to ascertain whether it may not be possible to add some fresh light to the science of medicine, and to afford some new aid for the advancement of the healing art; for the time is now gone by, when every new object is hailed as a great and important discovery, lauded by many, abused by others, until the public mind is led to distrust even the judgment of philosophers, and to deny the knowledge of the wise, when they find their opinions differing so much, and yet so fiercely supported.

ANTIDOTE TO ARSENIC.

We observe in the French papers, that a surgeon at Gottingen has discovered that the hydrated peroxide of iron is a powerful antidote for arsenic. It is prepared by pouring nitric acid into a very pure solution of the sulphate of iron, precipitated by ammonia, and well washed. M. Orfila, at the last sitting of the Academy of Medicine, communicated the result of his experiments on this hydrated peroxide of iron.

In his first experiment he states, to a middle sized dog he administered nine grains of arsenious acid, and immediately afterwards three ounces and two drams of the hydrated peroxide of iron, then, without loss of time, he tied the œsophagus. The dog presented no symptoms from the effects of the arsenic, and is still alive, now seventy hours since the administration of the arsenic.

This experiment has been repeated on several other dogs, and has always been attended with the same success, leaving little doubt that in these cases the peroxide of iron has completely neutralized the arsenious acid.

Exp. 2.—Nine grains of arsenious acid were administered to a dog, and, in half an hour afterwards, three ounces and two drams of the hydrated peroxide of iron were administered. The dog died presenting all the symptoms of being poisoned.

M. Orfila stated to the Academy that he did not consider that this last experiment in any way contradicted the former. For at the present day it is well known that arsenic does not destroy life by the local inflammation that it produces, but from its absorption, which causes some deleterious effect over the action of the heart, and also on the cerebral system. This absorption takes place very rapidly, and the antidote is seldom efficacious unless administered in a few minutes after the poison. M. Orfila in the course of a few

weeks intends to give a lecture on this subject, and we shall then feel great pleasure in submitting to our readers the experience of this celebrated chemist.

LONDON MEDICAL SOCIETY. MONDAY, NOVEMBER 17th, 1834.

Hydatids in the Left Ventricle of the Heart.—Dr. Blicke's opinion on the Pathology and Treatment of Asthma.

The principal speakers this evening were Dr. Whiting, Dr. Blicke, Mr. Kingdon, Mr. Dendy, Mr. Bryant, Mr. Clifton, Mr. Headland, and Mr. Roberts.

Mr. Roberts exhibited a specimen of hydatids in the left ventricle of the heart, attached to the columnæ carneæ. The patient, a female, dropped dead suddenly, not having shown any symptoms of cardiac disease previously. This case is one of exceeding rarity, and was considered unique, until Mr. Dendy stated a similar one was recorded by Mr. Price in the Medico-Chirurgical Transactions.

In answer to some questions by Dr. Whiting, Dr. Blicke developed his views of asthma, both as regards its pathology and the treatment. He was led to pay especial attention to to this malady, in consequence of having suffered very severely from it himself. He considers the disease to be dependent on an acid state of the blood, and that every paroxysm is attended with a species of inflammation or injection of the air-cells, which disappears with the fit, or shortly after. He places but little confidence in therapeutics, trusting almost solely to diet. That which he proposes is strictly animal, for he considers the stomach to be one of the principal causes of asthma, and believes that vegetables are very likely, by the fermentation they undergo, to prove injurious. He accordingly limits his patients to animal food, and that without fat. He gives them an ounce and a half for breakfast and the same for supper: he also allows two ounces for dinner. This plan is to be pursued for a fortnight, and the quantity may then be gradually raised. After some time, a mixed diet of animal and vegetable food may be used. If this diet be rigidly persevered in, Dr. Blicke assured the Society the asthma would not return. He used, at the same time, four or five grains of the extract of hemlock four or five times a-day, and directs the patient to keep some extr. glycyrrh. constantly in the mouth, which he thinks proves of advantage in lubricating the air-passages. He has tried the dietetic plan without the hemlock, and has cured his patients, but not so rapidly. He had also tried a vegetable diet with milk in small quantities, with the effect of lessening the duration of the paroxysm, but not its severity. Although he considered the disease to depend on an acid condition of the blood, he did not employ antacids, because, although their administration would arrest the complaint, yet he believed they would prove injurious to the stomach. The Doctor further detailed a case of supposed phthisis pulmonalis which got well under a similar dietetic regimen. Various kinds of food were tried ere that which the stomach could digest in sufficient quantity to keep up the strength was hit upon.

Considerable opposition was made to the plan of the Doctor's, and one individual in particular seemed determined to condemn all plans of treatment for disease having dietetics for their bases. He was of opinion, that those cases in which attention to diet, &c., was supposed to have wrought a cure, were actually cured by time and nature, or, in other words that the disease had worn itself out. While making these remarks, he undoubtedly forgot that diseases, and those, too, of a most complicated nature, frequently arise from irregular and improper diet; and if such is capable of causing disorders, surely a proper regimen and well regulated diet will at least assist materially in its alleviation or cure. We are inclined to go half way with Dr. Blicke; to consider that those cases of asthma in which there are decided marks of gastric derangement will be benefited, and perhaps cured, by

the plan of treatment he proposes, but we cannot consider that it is adapted to all cases of asthma.

The subject will be resumed on the next evening.

THE LIFE OF THOMAS LINACRE,

Doctor in Medicine, Physician to King Henry VIII, the Tutor and Friend of Sir Thomas More, and the Founder of the College of Physicians in London; with Memoirs of his Contemporaries, and of the Rise and Progress of Learning, more particularly of the Schools from the ninth to the sixteenth Century inclusive. By John Noble Johnson, M. D. Edited by Robert Greaves, of the Inner Temple, Barrister at Law. London: Lumley.

There is nothing that can be more gratifying to all who are cultivating the science of medicine, than to observe that the principal founder of that science, by which means the profession has at the present day attained that dignity which every one knows it possesses; that the life and labors of such a man should be handed down to posterity, at a day too when we are reaping the fruits of his indefatigable toil, is no more than every atom of his decayed frame, however dusty it might have now become, has so well merited. The biography then, of a man possessing the powerful mind of Linacre, whose indefatigable industry can scarcely be paralleled, must, we are assured, meet with its well-meited reward. We fear our space will not permit us to give a sufficiently lengthy detail to do justice to this interesting work. We cannot however pass over his classical abilities without recollecting that we owe much, besides the cultivation of the medicinal art, to the zeal of this talented man. It is to him that we are indebted for one of the most useful languages of antiquity; and from his persevering industry have obtained many important translations, which otherwise might have remained concealed in their own, then almost incomprehensible tongue.

The whole of his biography is truly interesting; we are obliged, however, as medical journalists, to confine ourselves to his medical career. We observe that, in the year 1501, he was elected as physician to Henry VIII; and may be considered the first who had the honor of filling such an important situation. The work is enriched with numerous interesting anecdotes; amongst others, we observe the medicamental potions prescribed at a time when medical aid was first considered necessary for the preservation of royal blood; and from this part of the work we commence to extract.

"The earliest mandate or warrant for the attendance of a physician at court, which the writer has been able to discover, is dated 33 Hen. VI, a reign fertile in the patronage which was afforded to practitioners of medicine; but in that reign no appointment existed which can justly be called physician to the royal person. By this warrant, the King, with the consent of his Privy Council, deputed to three physicians and two surgeons the regulation of his diet, and the administration of such medicines and remedies as might be sufficient for his cure, without any allusion to the previous existence or permanency of the office which they were authorized for a time to fill, or to a remuneration for their services." The names of the then temporary physicians were "John Arundell, John Farley, and William Ratcliffe; the surgeons, Robert Warren and John Menshall. The medicines and means of cure which they were to employ are specifically enumerated in the warrant, and present a formidable regimen, to which the royal patient was, by permission or sanction of his Council, to be subjected. They were *potiones, syrupi, confectiones, laxativæ medicinæ, clysteriæ, suppositoriæ, caput purgea, gargarismata, emplastra, rerota, ventosa cum scarificatione, vel sine hæmorrhoidarum provocationes,*" &c.

It appears, as well he might, that the royal person became dissatisfied with such treatment, and put more confidence in an ecclesiastic, who, if not more successful in his prescribing, was more lucky with the effect of his medicine, for he acted as chief physician

to his Majesty. Then, as regards the difference of pay between the physician, surgeon, and apothecary, the following items relating to the medical disbursements confirm what has been said on this subject, and furnish some curious particulars of the state of medicine in this reign. His Majesty seems to have been actively employed in the good work of healing; and, it must be confessed, that whatever honor accrued to the King's physicians, the chief emolument appears to have fallen to the lot of the apothecary, whose office, as the name implies, was then to provide medicines, without taking any share in the prescribing of them.

"21 Hen. VIII, May 16.—To Cuthbert, the King's apothecary, in full, xxx*l.* xii*s.* vi*d.*

"October 1.—To Dr. Baugh, for two sick men at Waltham, xv*s.*

"October 13.—To the serjeant-apothecary, his bill, xxviii*l.* iii*s.* x*d.*

"23 Hen. VIII, April 9.—To Cuthbert, the King's apothecary, on his bill, xxx*l.* iii*s.* x*d.*

"July 28.—Paid to a poor child, the which the King's grace heled at Windsor, vii*s.* vi*d.*

"Sept. 11.—To two poor folke that the King's grace heled, xv*s.*

"Oct. 23.—To a poor woman that the King's grace heled at Havering, vii*s.* vi*d.*

"Hen. VIII, Feb. 1.—In reward to Dr. Yakesby and another physitian, iiii*l.*

"21.—To my Lord Wiltshire, for a physitian called Dr. Nicholas, xx *angells*, viii*l.* x*s.*

"March,—Paid to my lady princess' physitian, in reward, xxvi*l.* xiii*s.*"

Thus we perceive, in these times, the apothecary was not to be despised, though his dignity was then considered far inferior to his noble master the physician; yet his pocket which we believe then was not his last consideration, was always more silvery than that of either the surgeon or physician. We must here conclude, and leave the history of this great man to the perusal of our readers. We might extract numerous anecdotes from the work, and fill our columns with its pages, but our weekly limits will not allow us; and even if they did, we do not like stealing the property of others. This work not only simply contains a sketch of Linacre's life, but also much useful historical information. It must have cost its author much time and trouble; and most heartily do we hope he may reap the success his labors so justly merit.—*London Medical and Surgical Journal.*

PRACTICAL OBSERVATIONS IN MIDWIFERY, BY WM. F. MONTGOMERY, A. M. M. D.

Professor of Midwifery to the King and Queen's College of Physicians in Ireland, and Accoucheur to Sir P. Dun's Hospital.

On Transverse Malposition of the Head, as a Cause of Difficult Labor.

In a former communication in the Dublin Journal,* I insisted strongly on the indispensable necessity for a complete and intimate acquaintance, on the part of the accoucheur, with the mechanism of labor, and especially with the exact relations which the different parts of the child's head observe with those of the pelvis, during the progress of a natural labor: by the accuracy of which knowledge alone, and our readiness in applying it in practice, can we hope either to understand the actual condition of any case under our care, or be able to rectify deviations, or remove difficulties, by means at once easy, safe, and effectual, instead of being compelled to resort to the use of instruments, the application of which, however skilfully managed, must always expose both mother and child to a certain degree of danger, and too frequently gives rise to injuries of a very deplorable kind. If it were necessary by facts to confirm a proposition so undeniable, I could scarcely adduce any which would, in my opinion, more powerfully support its truth, or illustrate the advantages derived from its adoption, than those on which I now propose to offer a few observations.

* Number xiii. p. 52, et seq.

I presume I may take for granted, that every one engaged in midwifery practice, has from time to time met with cases in which, while every thing seemed favorably circumstanced, and the labor was apparently proceeding expeditiously to its termination, the head has become suddenly stationary in the cavity of the pelvis, and there remained for many hours, or perhaps until a necessity has arisen for adopting instant means of delivery; and this too when there really existed no deficiency of space to prevent its free passage. The occasional cause of this species of arrest, I believe to be not at all generally understood, which I shall now endeavor to eludicate, by a description of a particular kind of displacement to which I have been in the habit, in my lectures, of applying the name of *transverse malposition*; and by the detail of one or two cases, in which its detection afforded an opportunity of giving instant and complete relief, and happily terminating a severe and protracted state of suffering.

I may just premise, that in the most perfectly natural labor, the head enters the pelvis with its longer axis in coincidence with one of the oblique diameters of that cavity, and with the chin pressed up close upon the chest, until the vertex has descended so low as to press upon the soft parts forming the floor of the pelvis; the occiput then begins to advance towards the arch of the pubis, and the face retreats towards the hollow of the sacrum; next the chin recedes from the chest, and the occiput issuing from under the pubis, the head escapes by revolving as it were, on a pivot under the anterior wall of the pelvis, so that in this way the head passes through the bony and unyielding chamber of the pelvis, in such a position, that it occupies the least possible dimensions, and the departure of the chin from the chest, which immediately requires greater accommodation, does not take place until the occiput having cleared the confines of the pelvis, has unlimited space to allow of its escape. But occasionally this felicitous arrangement is disturbed, and complete arrest of the head produced by the deviation, which occurs thus: the head having entered the cavity of the pelvis in the position already described, the occiput, instead of moving forward towards the pubis, recedes towards the spinous process of the ischium, and the face, instead of retreating towards the sacrum, falls into the space between the opposite spinous process of the ischium and its tuberosity; and the chin having receded from the chest, the head is placed, with respect to the outlet, in the most unfavorable manner possible, since it presents to it the greatest possible dimensions which it is capable of assuming, its longest diameter resting its extremities on the opposite tuberosities of the ischia, while at the same time the parietal bone rests on the lower part of the sacrum and coccyx, so that the head is in the condition of a ball supported on three nearly equi-distant, solid, and immovable points; under which circumstances the action of the uterus, however vigorous, seems totally incapable of either changing the relations thus established, or of effecting the delivery, while they continue as they are. On examining, the finger will pass readily between the head and pubis, and also posteriorly, except at the point of the sacrum; but there, and opposite the tuberosities of the ischia, the head is felt to be closely locked; the anterior fontanelle is found to be in the centre of the presentation, and the sagittal suture can be traced exactly across the outlet from side to side. How completely and how long this malposition will resist the most powerful action of the uterus, and how easily it may be rectified, will appear sufficiently from the subjoined cases; from which also it will be seen, that this difficulty, (occurring as it does at a time when, from the advanced position of the head, and the state of the perineum and other soft parts, delivery is momentarily expected) is likely to be productive of extreme embarrassment to the attendant, the more especially as the previous birth of full grown children, or even the circumstances of the case, many of themselves afford proof, that there is no natural deficiency of space, since the head may without difficulty be raised from its situation, to which, however, it imme-

diately returns, and will there remain until the necessary rectification is effected, which should be done in the following manner. Apply two fingers along the junction of the parietal and frontal bones anteriorly; then, in the absence of pain, press up the forehead, and push it backwards towards the sacrum, and there retain it till the access of the next pain, which will in general complete the rectification, and the delivery is speedily accomplished, at least it so happened in the instances which came under my observation. It is scarcely necessary to add, that if, during the descent of the head, a tendency to this malposition be observed, we should at once endeavor to prevent its occurrence, by adopting the means already pointed out as suited for its correction when established; and this I have succeeded in effecting in a few instances.

Case 1.—On Wednesday, July 15, 1829, I was requested to see a patient with the late Mr. Gregory and Dr. Carter; labor had commenced on the previous Monday evening, and proceeded actively on Tuesday; by six o'clock, P. M., the perineum was distended, and the head apparently on the point of being born; in this situation, however, it remained at nine o'clock, A. M. of Wednesday, when I saw her; although the uterus had continued to act most enerjetically the whole of the intervening time, and the soft parts were perfectly relaxed. It was the patient's second labor; she was young, healthy, and well-formed, and had about eighteen months before borne her first child, which was full-sized, after an easy labor of about five or six hours, so that deficiency of space was not probable. On examination I found the head pressing on the perineum; I could pass my finger quite easily between it and the symphysis pubis, but at the sides there was no room at all: the anterior fontanelle was in the centre of the passage, the sagittal suture coinciding with the transverse diameter of the outlet, and the occiput turned to the left ischium: the uterus was acting violently, but produced no other effect upon the head than that of pressing it a little downwards during each pain, on the cessation of which it immediately resumed its original situation. Under these circumstances, I proposed manual rectification of the displacement evidently existing; and having applied my fingers, as already described, along the side of the forehead, I raised and pushed it backwards, towards the right sacro-iliac symphysis, in the interval between two contractions of the uterus; I there retained it, and on the accession of the next pain I repeated the pressure backwards, when the forehead immediately glided to its proper place, at the same time the vertex moved forwards to the arch of the pubis, and *in about two minutes* the delivery was completed by the birth of a fine healthy child.

Case 2.—On the 14th of January, 1834, while lecturing at Sir Patrick Dun's Hospital, I received an urgent message from Mr. Dunlop, requesting my assistance in a case of obstructed labor, which he had been called to see, and in which, from the extreme violence of the uterine action, he apprehended rupture of the uterus, if the head was not speedily extricated: it was the woman's fifth labor, the four former having been short and in every respect favorable. In the present instance symptoms of labor had come on the evening before, the pains had continued gentle through the night, but towards morning they became more active, and at half-past seven o'clock the head was pressing upon the perineum to such a degree that its exit was momentarily expected; but there it remained, without any further advance, when I arrived at half-past eleven, although the uterus had been, during the whole of the intervening four hours, acting incessantly, and so powerfully that its rupture was with great reason apprehended. On examination, I found the perineum and soft parts protruded by the head; they were unusually relaxed and yielding; the head lay across the outlet of the pelvis, with the occiput resting against the tuberosity of the *right* ischium, and the forehead against the left, having probably descended in the second position; there was abundance of space between it and the pubis, *and it could be easily raised into the cavity of the pelvis*, but the next pain instantly

forced it back to its resting place, and when there, the uterine action, although so strong had no further effect on it whatever. I immediately adopted the same mode of rectification as in the former case, by elevating the forehead and pushing it round towards the sacrum, when it almost instantly assumed its proper relations under the influence of a pain, *and the very next contraction of the uterus expelled it;* the body immediately followed, and the delivery was completed in *less than two minutes* from the time of effecting the change of position in the head. The child was alive and vigorous. I was fortunate enough in this case to have the assistance of my friend, Dr. Darley, who happened to be with me when I was sent for.

With reference to these cases, it is to be observed, that the subjects of them were women who had already borne children without any difficulty, and that there was evidence at the time, from the circumstances of their cases, that there was abundance of space, as the event fully proved; and yet the obstacle created merely by this kind of malposition of the head was such as to resist, in the one instance for *fifteen hours*, and in the other for *four*, action of the uterus so powerful that it effected the delivery almost the very instant that the displacement was corrected.

As to the cause of this malposition, I am not prepared to offer any satisfactory explanation, nor is it as far as I can see, a matter of the least consequence. The idea of Levret, that such misplacements of the head were caused by the situation of the placenta, is so unsupported by either facts or reasoning, and is indeed so fantastic, that I think we may dismiss it at once without further consideration. Neither is the hypothesis, which would explain them by obliquity either of situation or action of the uterus, in any degree more satisfactory. Rœderer ascribes some such deviations to misdirection of the shoulders, which he supposes in such cases to be placed across the smaller diameter of the brim; that this may be so occasionally is not improbable, but in the particular species under consideration I think it certainly is not the case, because we can so completely correct it, merely by changing, and slightly too, the position of the head without moving the child's body at all. One thing, however, is certain—that when the malposition has taken place, the chin of the child has receded from the chest, and the forehead has sunk as low as the occiput, and that its re-elevation is essential to the rectification, and must be accomplished before delivery will take place: for while the transverse position continues, the natural efforts will not be sufficient, the forceps will not answer our purpose, and turning is out of the question; so that if the real nature of the case be not recognized, recourse will be almost certainly had to the appalling operation of cephalotomy, and a human life unnecessarily sacrificed. It seems very reasonable to suppose that an unusual projection or curvature of the spinous process of the ischium might have the effect of producing this accident, because, under such circumstances, the forehead being prevented from gliding backwards, and being still acted on by the uterine contractions, would almost of necessity be forced downwards into the situation where we find it in such cases, and the occiput would, of course, assume the corresponding situation at the opposite side of the outlet.—*From the Dublin Journal.*

GRAY TUBERCULAR INFILTRATION.

This infiltration is frequently formed around tubercular excavations: it exists, though very rarely, independently of isolated tubercles: it forms large masses of a somewhat transparent greyish appearance. Under these circumstances, the pulmonary tissue is of a cartilaginous density, humid, and perfectly impermeable to air: if, then, sections of it be made, their surfaces are smooth and polished, of a homogeneous texture, and the pulmonary cells are no longer distinguishable; small yellow and opaque spots appear disseminated in the mass; they gradually enlarge and unite, until the whole is converted into a body of *crude tubercular infiltration.*

In a notice of practical hints "published by a veteran provincial physician, Dr. Peacock of Darlington, the medico-chirurgical review, records the following singular cases:—

I. A case of most extensive sloughing, not only of the tonsils, but of the whole of the fauces, was arrested in its destructive progress by the following mixture, which would, with difficulty be borne by a sound throat.

℞. Confect. aromat.
Pulv. zinjib. aa ʒj.
Carb. ammon. ʒj.
Tinct. Opii, ʒij.
Aquæ menth. pip. ʒviij.

Misce et capiat coch. ij. mag. alternis horis.

II. A soldier quartered at Darlington, became jealous of his wife, and determined to starve himself. He lay in an open cowshed, during cold weather, for five days without food. When found, he was carried to a public house, and had brandy imprudently administered to him. This brought on violent imflammation in his legs, followed by gangrene. Spirituous applications were made to the legs, and a mixture, similar to the foregoing formula, was exhibited internally. At the end of four days "the skin, muscles, and fat were as cleanly dissected off as if done by Lawrence himself." Notwithstanding this he speedily recovered, and "was enabled to mount his new legs." We suspect that some error has crept into the text here. Had the *muscles* been destroyed, we doubt the probability of the soldier's ever mounting other than wooden legs afterwards.

Some other cases of sphacelus are related, where the good effects of opiates, stimulants, and nutritious diet were conspicuous.

III. *Diabetes.*—Our author formed an opinion long ago, that diabetes originated in acidity of the stomach. He met with a military gentleman, aged fifty, a good deal wasted with this complaint, all the usual symptoms being present. He prescribed ten leeches to the epigastrium, opened the bowels, and then exhibited five grains of carb. ferri, one grain of opium, three grains of pulv. aramat. ʒj. of creta preparata, the same of gum arabic, and three grains of pulv. jacobi veri, every four hours, day and night. He was told to use his own discretion as to food, but to drink only water. At the end of a fortnight he came to our author quite a new man. "From a withered old fellow he had become corky and facetious, and begged me to fix the day when we could have a bottle of wine together." Whether the doctor and patient cracked the bottle together, we are not informed; but the medicine was continued for a month longer, when he appeared perfectly recovered.

Our author has come to place great reliance on this plan, especially when the patients are not broken down with organic diseases. Two additional cases are detailed, and which support the author's assertions.

IV. *Dropsy.* Dr. P. has no specific for this complaint, which is, indeed, only the sequence of some other malady. In one case he was successful with Fowler's tincture of tobacco.

V. *Neuralgia Ophthalmica.* After a long prevalence of cold easterly winds at Darlington, in the year 1826, rheumatic complaints prevailed. In one case, a shepherd who had been much exposed, became affected with severe pain, irregularly intermittent, in the centre of his eye-balls. When the attack came on, it was generally attended by deep-seated pain in the head, and convulsions. The antiphlogistic plan had been tried, under the idea of cerebral inflammation; but Dr. P. adopted a stimulating treatment, consisting of tinct. guaiaci ammoniat. and opium, which succeeded, though with difficulty. A great number of similar cases afterwards occurred, and gave way to the same means.

VI. *Pain from exhaustion.* Dr. P. is not quite certain whether or not he is right in the title of this chapter. Not being inclined to theorize, he leaves others to set the matter at rest. A gentleman, between forty and fifty years of age, came to Middleton afflicted with a violent and deep-seated pain in his head, which upon using any strong exertion, threw him into convulsions of the epileptic kind. He had been afflicted with mental ills of a distressing kind. His pulse was eighty-six—eyes not red; but the pupils rather dilated—urine pale. He had undergone considerable depletion. After emptying the bowels, the following powder was given every six hours.

℞. Pulv. ipecac. compos. gr. vj.
———aromat. gr. iij.
Sub. hydrarg.
Opii, aa gr. ss. M.

"This medicine released him from his sufferings very soon, so that, in a few days, he was able to go home."

"I was called in to consult upon the case of a carpenter, in Piersebridge, who had long suffered under an intense pain in the head, which had, with some reason been supposed to proceed from occasional inflammation of the membranes of the brain.—The pupils of his eyes were rather contracted; his pulse from a hundred to a hundred and ten, when the pain was bad; and when it was upon him a sudden shake, or a false step, was very inconvenient.—The depletory practice was pushed to no purpose.—This case was a puzzle; but the compound ipecacuanha, with small doses of opium and calomel restored him." 38.

VII. The three following cases are (says Dr. P.) so incredible, that he is obliged to give the names, so that they may be authenticated, if doubted.—They will probably excite the risible muscles of some of our readers.

1. "H. Thompson, Esq. was brought up at Bowes, near Barnard-Castle, where he has a brother at present; he was of that class called yeomanry. But about middle life he engaged with two others in a very extensive commercial speculation, and happening to succeed, they were left immensely rich; and when this gentleman sent for me he had a most sumptuous establishment of carriages and servants. Mrs. Terry, of Darlington, had requested him to put himself under my care, and he took a house about half a mile from Darlington; but whilst his house was getting ready, it came into his head to consult a noted physician at Newcastle, from whence he returned without experiencing any relief. This, he told me, was the thirtieth physician he had consulted since the commencement of the disease, and the fiftieth surgeon. His disease was constipation of the bowels; he had been six months and two weeks without any discharge that could be called a stool of any kind or consistence. When our patient was hungry, he swallowed anything he took a fancy to; such as game, half raw beef-steaks, rich soups, &c. &c. And about half an hour afterwards, he irritated his throat with two or three feathers, which made him disgorge what he had taken, and in a few hours he was fit for another meal. Sometimes he made a little urine, but very little and thick, and about an orange color; and some such orange-colored fluid as this came up with what he vomited: but it would have required the pencil of John Martin to have given any idea of the horrors which beset you when engaged in a tete a tete with this scarcely human being. The cuticle was nearly the color of very old mahogany, and adhered so closely to the bone, that a careless person might have mistaken it for veneering, or a covering of the bone with a dark pigment.—Mr. T. was more than six feet high, with large bones, and so much emaciated, that I have proposed frequently, as a query whether it was possible to scrape an ounce of flesh off his bones from any part of his body: he could not ride upon the softest carriage seat,—so that when he attempted exercise he rested upon his wife's arm, and could paddle

about fifty yards in a day.—Their house in Blackwell, was surrounded with a high wall and frequently the poor villagers had to pay for the gratification of their curiosity, by peeping into the garden when he was using exercise; for it was not uncommon for the women and children to take fits when they got a glimpse of him,—indeed their screams were beyond description, and at length the gates had to be locked entirely. When you patted his sides with your fingers, you were conscious you were striking a large wallet of pebbles—he scarcely had any suffering which could be called pain.—I examined him very minutely, and among other questions I asked him if he was ever sick, and he said never in his life; at this I could not help breaking out into a laugh in his face, for which he gravely rebuked me for making his misfortune the source of merriment,—but I certainly never had so pleasant a laugh in my life, for it immediately struck me that this monster of a skeleton might be made well; and as it tickled my fancy, I laughed again and again; and I am not quite sure whether my patient did not send to his friend, Mrs. Terry, to ask if the physician she had sent him was quite SANE; however we commenced operations the very next day, and in less than two days he had discharged a full peck of excrement, which had a much nearer resemblance to a peck of black marbles than to anything else; they were quite as hard, but rather larger, than marbles, and as black as jet, and very little of the natural fœtor. I had put together a very weak purging mixture of the common composition, two tablespoonsful of which he was directed to take every four hours.—Now, the practised physician will see the occasion of my merriment when it broke out; and if I had not told him what I was about, he would have put five or six grains of antimon. tartar to ℥viij. What were the fifty surgeons and thirty physicians doing during the last six months that they could not hit upon a purgative as mild in its operation as manna is to an infant! for it really did not incommode him at all.—He had not pain nor griping. The only ALARM rested with the POTTERS, among whom our grape shot made sad destruction. After this Mr. T. got his flesh apace, and left Darlington in good health, as many here can bear evidence of."

2. The following case was nearly as marvellous as the last. I was told that Diana Coltman had come to see me from Winton, near Sigston, Northallerton; it was a warm day, and she had come extended upon a mattress on an open car, with very great difficulty; she looked as if she had been a good looking girl, but much emaciated; indeed the account she gave of herself was, that she had been confined in her bed upwards of three years, during which time she had never taken a mouthful of meat, not even bread.—When she attempted a small morsel, it threw a violent pain into her stomach, which was immediately felt in her head, accompanied sometimes with copious vomiting of blood, and loss of intellect. At any time if her head was raised she lost her senses, and all power over her legs and arms; but her senses returned when she was laid horizontally. It was curious that ripe fruit never disagreed with her; she could take half an orange, a plum, or a cherry, with a high relish, and never threw them up—the same with gooseberries or grapes. The most striking feature was the loss of sense when her head was raised, and of muscular power in her limbs; when she came to me her bowels were very slow, but by taking during the day, ℈j. pilul. cœrul. hydrarg. and as much of the pilul. c. extr. colocynth and washing it down with a mild saline mixture, her bowels became temperate and her mouth never affected; her urine was scarce till her bowels performed their office well, when we had no further difficulty; her tongue was dry and white, till she had got to take ℈j. of the blue pill every day. She had frequently taken ʒss. a day, which never occasioned ptyalism; indeed I have remarked upon several occasions, that when a patient took large and repeated doses of mercury to act upon them, it was generally very successful when it did act. Whether this was a spinal case was never demonstrated—from its mode of cure I guessed it was. From the mystery in which the disease was enveloped

many unfavorable reports were circulated,—but I firmly believe without any foundation in truth; indeed the notice with which she has been honored by many respectable families in the neighborhood, was a guarantee that nothing unfair had been practised upon their credulity. And the clergyman of the parish, a gentleman of considerable information, whose benevolence was very largely exercised in supplying the wants of this poor creature, had there been any attempt to counterfeit, would, long before she came to Darlington, have unveiled the impostor. By degrees she suffered her head to be raised a little several times a day, and the convulsions gradually subsided; but this was effected by a good neighbor, a very strong woman, who had the power of moving her in her arms with great facility, and lost no time during night and day to accustom her to a change of position. On her first arrival at Darlington, her stools were dark, but came gradually to their natural hue,—her diet, whilst here, was chiefly apples and pears, and when she attempted to make it more nutritive her sufferings gradually subsided. I think she was here about three months."

The third of these wonderful cases we must also give in the quaint and original language of the author.

3. "Mr. William Trufitt, a farmer at Huttonbonville, near Northallerton, had been sometime under the care of the faculty of that neighborhood, in an obstinate diarrhœa; at last they sent for me; I forget how long he had been confined to his bed, but he was almost as shocking an object to look at as Mr. Thompson, with his black marbles. As soon as ever Mr. Trufitt eat anything, he had a strong pressure to stool, which came away almost unchanged, and not in the least feculent; he had much thirst, and sometimes his stools were quite limpid, and as thin as gruel, and very little at a time; he really seemed as if he was made on purpose for drinking, although at other times a very sober man;—from being so very bony and thin, his skin was sloughing off from all parts of him. Astringent medicines by the mouth, as well as enemata, had been fully tried, but did not give ease; his pulse was forty: I was not to let him sink without an effort.—I recommended to his family to rub into his arms and thighs ʒss. ung. hydrarg. fort. during every six hours, night and day. I need not comment as I go along; the experienced physician will see what I am about;—his diet was now lean broth without any vegetables. At the end of the sixth day there was no peculiar smell in his breath, nor any soreness or redness of the gums. I was resolved, if possible, to have a determination to his upper works. They still rubbed on, and I gave my patient five drops of Fowler's solutio mineralis three times a day, in a spoonful of spring water. On the fourth day of giving this medicine, the countenance was evidently bloated—but ptyalism had not ensued; but I nevertheless sang Io Pæans all the way home. It is only a man who has the interest and credit of his profession entirely at heart who can be aware of the pleasure I felt in returning home that evening. I had not miscalculated—he recovered gradually, but straightforward from that day. Ptyalism was a failure. We frequently meet with people who are proof against mercury,—but the enlargement of the head, and the eruption upon the skin, did the business equally well. In intricate cases, I have been frequently helped out by this revulsionary practice, and were it more studied in the hands of attentive practitioners, it might be brought to do much good."

VIII. In cases of obstinate constipation bordering on inflammation, Dr. P. avers that he "never failed to succeed when he was content with giving a quarter of a grain of calomel every quarter of an hour, particularly if he began with the calomel before the retchings came on." He justly observes that practitioners are often defeated in these complaints by giving too much medicine by the mouth, and thus increasing the irritability of the stomach. In cholera our author and his partner, Dr. Macfarlane, tried the plan giving a grain of calomel every ten minutes, washing it down with a little cold water. They did not lose a patient.

IX. *Pain in the stomach with indigestion.* Dr. P. is a staunch advocate of the Broussain doctrine of dyspepsia—namely, that it consists of chronic gastritis, and lauds the exhibition of "mucilaginous drinks acidulated with lemon juice, and debarring his patients from eating animal food, &c. We suspect that our veteran confrere of Darlington has not suffered much from indigestion, or he would not have been so warm in his praises of acid slops in that complaint. The notorious fact that dyspeptics can (nine out of ten) digest animal food much easier that vegetable, is a proof than the disease is far more nearly allied to gastralgia than to gastritis.

X. *Headaches.* Dr. P. must surely regret his advance on time's list, since he must have been one of the most successful practitioners that ever lived. Most physicians become sceptical as to the great efficacy of medicine, as they get old; but Dr. Peacock is just the reverse. His remedies are infallible and consequently his success complete.

"We frequently meet with people who have most violent and distracting head-aches from various and opposite causes, yet always difficult of relief. The cases are so one like another, and the cure accomplished by such simple means, it is hardly worth while running into the detail of cases—although my memory would furnish me with ten or twenty at a call. But let those who are subject to such dreadful pangs take the following medicine as directed, and I shall be much disappointed if a few minutes does not convince the sufferer of its efficacy.

℞. Bac. Capsici. ℥ij.
Gum Arabic, gr. x.
Syr. Alb. q. s. ft. Pil. xx. quar. sum. iv. 2da. quaq. hora dolore urgenti.

It is useful to wash them down with a little cold water—but there is seldom occasion to take more than one dose as they take away the pain like magic."

XI. For sciatica and tic-douloureux, which our author considers as twin sisters, his sheet-anchor is the seeds of stramonium. The following is the formula he employs.

℞. Bac. Capsici, ℥j.
Calomel, gr. x.
Sem. Stramonii, ℥ij.

Muc. G. Arab. q. s. Ut ft. pil. lx. quarum sumat. 1 quarta quaque hora. He also administers a couple of grains of opium occasionally during the continuance of the pain. Five drops of Fowler's solution are also given twice a day.

The review, after detailing the important parts of Dr. Peacock's book which had previously been submitted to the inspection of Professor Elliotson, concludes with the following just remarks.

We have now extracted the substance from Dr. Peacock's book, and given it a greater extent of publicity than it would be likely to attain as a monograph—or rather a polygraph. We are not much disposed to censure mere manner or style in a medical book; but we think Dr. Elliotson would have done the author of the work which we have reviewed a favor, if he had smoothed some parts of the language employed in it. Dr. P. is evidently one of the old school; and we have no right to expect the introduction of modern pathology in a brochure, which merely aims at conveying some practical hints to the author's less experienced brethren.

A TREATISE ON GOUT.—BY DAVID LESSE, M. D.

Dr. Lesse has been very moderate. He has only given us a small brochure of forty-seven pages on the intricate subject of gout. Yet he might have condensed his treatise into forty-seven lines, without much loss to his readers. The author became affected with gout thirty-one years ago, and treated himself, with indifferent success, till the year 1818, when his attention was attracted to Sir Everard Home's paper on colchicum. He had

recourse to this remedy, in small doses, combined with vinum ipecac. and has experienced the best effects from the said combination, aided by proper regimen. This is the tenor and substance of the pamphlet. We subjoin an extract respecting diet, which is not uninstructive.

"It may be proper in this place to remark, contemplating the disease, as I do, a variety of inflammation, that during the early stage of an attack, when leeching may be found necessary, the diet of the patient should be in accordance; consequently, a more abstemious system should be resorted to than he is accustomed to in health, or when the violence of the attack has been subdued. I shall not say much on the subject of diet, the disease does not often attack persons till they arrive at years of maturity, when every one's common sense should teach him to avoid what he has found to disagree with him; keeping in mind that intemperance and excess are fruitful sources of disease, especially of Gout, and as it is not in accordance with my opinion to treat it as an humoral disease, there is no occasion to go into minutiæ on this head. Nevertheless, it is necessary to give some general advice on that point. Much must depend on habits and station in life:—and first, it may be observed, that excess in quantity, and in variety of wine or viands, is nearly as much* to be deprecated as quality; to blend a variety of heterogeneous articles in the stomach is doing the utmost to produce a fermentative process there; engendering thereby flatulence, dyspepsia, and, consequently, imperfect chylification. Who has not felt or found the acid eructations consequent on such a proceeding? Abstinence is not necessary for the gouty, but simplicity in diet is essential. At the principal meal, or dinner, which should not be taken later than four o'clock, there is no objection to mutton, beef (not salted), lamb, poultry, game, or venison, but not with high sauce; or, fish in season, and alternately; but let not the arthritic partake of more than two of these at one repast, avoiding generally, pastry, and what are called made-dishes; batter or bread-pudding may be added to the two articles selected for the day. Spirits in all their various forms, and delusive names, I hold utterly objectionable, and malt liquor should be avoided, considering it much better to drink water, or toast and water during dinner, even to the admission of a glass more of wine than might otherwise be allowable. If soup be taken, it should be of the simplest kind; for instance, gravy with vermicelli. Brown bread made of flour, from which only the coarsest bran has been taken (but none of the farinaceous parts), may, with great advantage, be substituted for the bakers' bread of London; if this cannot be obtained, biscuit may be taken. Wine is a very important consideration connected with the diet of that class of persons subject to Gout. The quantity should depend much on previous habits; but, I am of opinion, as a medium rule, a pint of sound wine may be taken with impunity during and after dinner, when free from an attack: and the first rule as to choice, I think, is that which has been found to agree best, avoiding the delusion, though, of considering that the best, which has been found most apt to fix a wandering, or direct a misplaced Gout, to some parts more agreeable to the fancy—and I am of opinion that Maderia wine, from some latent acid or other quality, has obtained so much favor, because it is most productive of Gout; if the digestive powers of the stomach be good, I know of no wine better than sound old Port, that has deposited it tartar; should this not agree or not please, the next to be preferred is sound old Sherry. I have drank some Hermitage, to which I think no objection could be made. Claret may be taken, but should be carefully chosen, none but the very best being admissible. Two or three glasses of Sautern wine may be drank (drunk); Hock and Cyder should be avoided.

With these few and simple remedies I have named, may every case of Gout be combated and subdued, as certainly and safely as any other severe disease, and all the deformity and decrepitude we too often witness prevented."

* He might have said "much more."—Eds.

Dr. Leese has amused himself (probably during some comfortable immunity from Gout) with a laugh at the absurd speculations which have been hazarded by eminent physicians, ancient and modern, respecting the nature and treatment of this painful malady. We have been too poor and too industrious to be honoured with visits from this aristocratic guest—therefore we cannot lay claim to so much personal experience as Dr. Leese is possessed of. We have seen a little of the complaint, however; and we cannot by any means agree with our author, that Gout differs in nothing from common inflammation, except from the nature of the parts which it attacks. Why does Gout so generally affect certain parts? Why did Dr. Leese so regularly have attacks of inflammation in his great toe, after indulging in East India Madeira? This looks something like a specific inflammation. How did it happen that the worthy Doctor's nose did not sometimes turn red, instead of his great toe?

ACETATE OF LEAD AND OPIUM, IN CHOLERA.

We would call the attention of the profession to the following extract frnm Dr. Grave's Clinical Lectures. The testimony of so able and experienced a physician should not be passed over slightly. We have reason to believe that the acetate of lead will become an important agent in the cure of that terrible disease which still rages within our borders. We have understood, when the cholera almost desolated the rice plantations on the Savannah river, in the fall of 1834, that this remedy was one of the most efficient means of arresting its destructive career. We have great confidence in the judicious administration of calomel and opium, or rather morphia, in this disease, combined with bleeding and emetics when the circumstances required them; but we have no hesitation in saying that the acetate of lead and opium deserve a trial.

"With regard to the quantity of acetate of lead which may be given in this disease, and the mode of administering it, a few words are necessary. I have already stated that, when I first tried it, I prescribed it in large doses, fortified by the authority of Dr. Bardsley, and by my own experience of its utility in many cases of diarrhea. It appears, that before I recommended the acetate of lead, it had been used at the Cholera Hospital in Grangegorman-lane. Of this I was not aware until a book was subsequently published by Dr. Crainfield, which I afterwards reviewed in the Dublin Medical and Chemical Journal, and I feel that on that occasion I did fair and impartial justice to its merits. I certainly did not know that the acetate of lead had been given at the Grangegorman Hospital; for in the very able report of cholera as observed at that institution, published by one of its officers, Mr. M'Coy, the treatment relied upon appears to have been the mercurial, and not a word was said of acetate of lead. It had certainly been used there by one physician, but it was given in smaller doses, insufficient to produce decided effects, and no stress had been laid on its value as a remedy in cholera by the practitioners attached to the hospital. Be this as it may, acetate of lead was not known to the medical men of Dublin and to the practising apothecaries before I recommended it. It had been frequently employed in the form of injection by them, but no one had given it in large doses by the mouth, or introduced it to the particular notice of the profession. I believe I can fairly claim the merit, such as it is, of being the first to give it in large and effectual doses. The mode in which I prescribed was this:—A scruple of the acetate of lead, combined with a grain of opium, was divided into twelve pills, and of these one was given every half hour, until the rice water discharges from the stomach and rectum began to diminish. In all cases where medicine promised any chance of relief, this remedy was attended with the very best effects. It gradually checked the serious discharges from the bowels, and stopped the vomiting. I need not say of what importance this is; as long as these exhausting discharges continue, as long as the serum of the entire body continues to be drained off by the intestinal

exhalants, what hope can we entertain? What benefit can be expected from ... and stimulants, when every function of the digestive mucous membrane seems to be ... extinguished, except that of exhalation, and while profuse discharges, occurring ... five or ten minutes, are reducing the patient to a state of alarming prostration? Know... the inevitable fatality of all cases where these discharges went on unchecked, I was ... in having discovered a remedy that seemed to possess more power in arresting them ... any yet devised, and this impression was confirmed by the results of subsequent experi... That the acetate of lead will succeed where all other astringents fail, was proved by ... case of Mr. Parr of this hospital. Having got an attack of threatening diarrhœa, at a ... when cholera was prevailing in Dublin, this gentleman used various kind of astringe..., and took so large a quantity of opiates, that he became quite narcotised, but without ... relief to his symptoms. When I saw him he was as bad as ever, and was beginning ... exhibit appearances of collapse. I advised the use of pills composed of acetate of lead ... opium in the proportions already mentioned, and had the satisfaction of finding that ... night the diarrhœa had ceased. The pills are to be used one every half hour while ... diarrhœa remains unchecked, but as it begins to diminish, the intervals between each ... may be prolonged, and in this way the patient may be gradually prepared for leaving ... the remedy altogether. I have frequently given in this way as much as forty grains ... acetate of lead in twenty-four hours, with great advantage to the patient, and without ... bad consequences ensuing.

It is unnecessary for me, gentlemen, to say any more on this subject; if I chose to mention names I could bring forward the names of many medical men in Dublin who lives, I am happy to state, were saved by the use of this remedy. I may, however, observe that this mode of treatment has now become universal here, and that it has almost completely superseded the use of calomel and opium. I will confess that this fact is a source of high gratification to me, and I point also with pleasure to the fact, that since it became extensively known (as it did during the last invasion of the epidemic), the profession has gained more credit than before, and the number of cures has been proportionally greater.

I have referred to this subject also for another reason. I feel it a duty which I owe myself, to defend myself against a series of attacks which were made on me, and to vindicate my claims, not to having been the first to administer acetate of lead, for it had been given previous by Dupuytren and at the Grangegormam Cholera Hospital, but to having been the first to prescribe it in large and sufficient doses, to render it an available and useful remedy, and to introduce it to the general notice of the profession. The credit to which I lay claim rests solely on these grounds. I have been attacked on more than one occasion in the public papers, and gentlemen subscribing themselves Honestus, Candus, and Verax (per entiphrosin, I suppose, for they have shown neither honesty, candor, nor truth) have attempted to rob me of the merit of what they sneeringly called the lead treatment, I am not in the habit of noticing attacks in the daily or weekly papers, but I have thought it necessary to say so much in the way of explanation, lest any of my friends or pupils should misinterpret my silence."

A correspondent suggested the use of an air pump, so applied as to act on the surface of the body, to remove visceral congestion and produce immediate reaction. "Could not this," says he, "be effected by placing the body in an exhausted receiver of an air pump, or in some machine from which the atmospheric air could be removed? Is it not evident that this would be followed by a rush of blood to the surfaces, acting like a cup over the whole body and producing immediate reaction."

We have no doubt but the idea suggested by our western correspondent is original with him; but it was promulgated in 1832, while the cholera was raging in Ireland, and was partially successful. The following communication from Sir James Murray, M. D. extracted from the Lancet, of the 28th March last, presents a full view of the subject.

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ON THE LOCAL AND GENERAL INFLUENCE ON THE BODY, OF INCREASED AND DIMINISHED ATMOSPHERIC PRESSURE.

By Sir James Murray, *M. D., T.C.D. and Ed.; M.R.C.S. Ed. &c., Dublin:*

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To the Editor of The Lancet.

Sir,—Every medical man who has been the first to propose or practise an improvement in his profession, is naturally anxious for the credit of his discovery. The process of altering the density and pressure of the atmosphere on the whole body, or on one or more of the limbs, was submitted by me to the profession after long reflection, but I did not think that it met with the consideration it deserved. During the prevelance of the cholera here, all my time was engaged as a member of the Central Board of health, and I had not a moment for personal attendance on the sick; therefore the adaptation of my theory to practice was not so well supported as I could wish. After that time, long absence in Italy, and subsequent illness, prevented my prosecuting the subject with attention, but since my return to Dublin I have renewed my endeavours to render the general and topical power of this agent better understood, and to extend its application in aid of the treatment of many disorders. Actuated by this desire I read a paper on some of its adaptations before the Surgical Society of Ireland, and had determined to give the results of certain trials in a separate publication but seeing the paper of Dr. Clanny in The Lancet of the 7th inst., I am now induced to submit my views to the profession through the same channel.

I am much more anxious respecting the merits of my propositions than their priority, but if Dr. Clanny entertains any doubt of the latter, I can refer him to most respectable medical gentlemen with whom I have made the rarefaction and condensation of air on man and other animals a subject of discussion since 1812. The application of this process to cholera was only a small part of my original propositions, as I still think it applicable to many other purposes.

Dr. Clanny has candidly awarded me the merits of the practice. I am pleased that the theory presented itself to his mind. I have no doubt that he will evince the same liberal feelings as those which actuated Dr. Orpen, when set right on this identical point by my friend Mr. Carmichael, in 1832.

The correspondence on that occasion is so short, so convincing, and so little known (owing to the alarms which existed at the time), that I beg leave to quote it here in reference to the late experiments of Dr. Junod, and as confirming in practice many of the anticipations which Dr. Clanny entertained in theory*:—

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"In answer, Dr. Orpen sent me a very candid reply, concluding as follows:—'If you wish, I will write to the Medical Journal acknowledging that you have convinced me of the priority of your ideas; occurring first to your mind without suggestion as they did afterwards to mine without suggestion. I am truly yours,

C. E. H. Orpen, Aug., 1832.

* Printed in a work entitled the "London Med. and Surg. Jour." but here partly abridged by us.—Ed. L.

This is so fair as to render further observations unnecessary. The following case was drawn up by Mr. M'Kenna of the Cholera Hospital, by direction of Dr. Hart. The termination was fatal, but the influence of the abstraction of air was put beyond doubt, a proper mode of accomplishing that procedure could be easily effected, and continued for a sufficient time in the horizontal position. An artist is now preparing a bath for that purpose.

"'August 20th, 1832.—Case.—Patrick Molloy, 23, South King Street, of robust frame, entered at half past five this morning, in collapse, with blue skin, extremities cold and shrivelled. At twelve o'clock noon, was put into the air-bath. Before removal from bed he had along with the foregoing appearances, his respiration at 36; pulse in the subclavian and brachial arteries 104-8. There was none to be felt on the most careful examination at the wrists; much thirst; no vomiting nor purging. After being three minutes in the bath, the respiration rose to 46, but gradually subsided, and did not rise to above 40 afterwards; the mercury was raised at this time about an inch in the tube, to which height it was kept as nearly as possible. He complained occasionally of faintness, but improved evidently in the expression and color of countenance. After remaining sixteen minutes and a half in the bath, he was removed at his own desire, and conveyed carefully to bed. The heat in his body and limbs was very sensibly improved; the respiration 40; the pulse (which had become perceptible at the wrist) 136; the body not moist; the limbs covered with a profuse perspiration, the improvement in color and expression of countenance continuing. At a quarter of an hour after this he holds the benefits derived from the bath. I am bound to add, that the alterations made in the bath were the greatest improvements, and the machine gave us no more than unavoidable trouble.—J. W. M'Kenna. August 20th, 1832."

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Long since I proposed the abstraction of atmospheric air from the trunk of the body, I heard that some non-medical person had suggested an apparatus for with-drawing air from the limbs, but in the latter case the principles and practice were entirely different.

The original paper sets forth my reasons for the suggestions, so plainly and explicitly, that I am anxious to quote it here, as well to explain the doctrine as to render the future propositions of this paper more intelligible. Drawings are not given, because every artist is at liberty to copy any part of the apparatus, which is much preferable to tedious description.

It is hoped that the substance of the publication of 1832 will not appear tedious to the readers of The Lancet, it being necessary as a preliminary explanation of the intended continuation of this paper.

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"ON THE EFFICACY OF DIMINISHED ATMOSPHERIC PRESSURE IN SOME CASES, AND OF INCREASED COMPRESSION OR CONDENSATION IN OTHERS.

"*To the Editors of the London Medical and Surgical Journal*:

"Gentlemen,—In a work of mine on Temperature, reviewed by you in 1830, many experiments are detailed, and suggestions offered, on the influence of an altered atmosphere both on the lungs and surface of the body. The continued investigation of these subjects since that time, both in a philosophical and medical point of view, led me to examine the effects of the common air itself, when varied in its density and pressure by art. The results of this inquiry appear so important, as to induce me to submit the principle for the opinion of others, before I could sufficiently ascertain its probable value myself. If the resources of philosophy can be made available in this instance to the purposes of

life, much of that delay and expense may be avoided which the imperfection of our machinery obliged me to contend with in this country.

"In the course of the experiments instituted on respiration, I observed that an animal confined in an air-tight vessel did not appear to suffer much inconvenience, if a proper supply of air were afforded for breathing by a hood adapted to the mouth and nose, while at the same time, the air in the vessel was exhausted or rarefied by a pump to the extent of two or three pounds on the square inch. After incredible labour and expense, I succeeded in procuring a kind of bath, into which a young man was introduced, with a hood attached, leaving an open space for the eyes, mouth, and nose, and luting the margin of the opening round the cheeks and forehead by means of oiled silk or wet bladder. The pump was then connected with the bath, and the air exhausted till the mercury rose three inches in the glass-tube fitted as a guage. As might be expected the skin became instantly hot, turgid, and red, and perspiration broke out profusely; he seemed very easy, rather exhilarated, and appeared to take in large inspirations of air; the chief sensations he felt were, a drawing of the abdomen forwards, and the speedy heat of skin. Though above two tons weight of air were removed off this man, he remained in twenty minutes, and came out very warm and wet with perspiration; the vessels of the skin were distended, and the surface red; his master, who was present, then entered the bath, and with similar results. Encouraged by the safety of these trials, I attempted to form a horizontal case or vessel, of patent air-tight cloth on hoops, but owing to the want of a good artist I could not well succeed in this attempt; others, however, may be more expert and successful.

"As I find that half a pound abstracted off the square inch produces great determination to the skin, and expansion of the chest, there is no necessity for great strength, whatever vessel or chamber may ultimately be adopted, should the principle become applicable in practice.

"The effects of a rare atmosphere are pointed out by those who have ascended very elevated situations, but in such cases the air inhaled was as light as that around the body. On the contrary, it is natural to expect different results if you place a man in rarefied atmosphere, who is at the same time breathing air of the usual density and pressure. Abstraction of a ton or half a ton weight from the surface, permits the cutaneous vessels easily to fill, and favours their detention as it were by suction, while, at the same time, the lungs received a column of the usual expansive force supporting the interior trunks and organs, pressing and propelling out the blood from the centre to the circumference. In this consists the novelty and value (if any) of the principle I propose, and in this it differs from dry cupping of a part of the body, or one or more of the limbs.

"So far as respiration is concerned, the trunk resembles an elastic vessel, capable of expansion, and again of contraction by muscles and cartilages, and this contraction can take place even when the exterior pressure is taken off. If we, therefore, lift away two or three hundred weight from the circumference of the thorax and abdomen, we facilitate pulmonary expansion to that extent, by the easy descent of the diaphragm, and elevation of the walls of the chest; we then fill this vacuum with an atmosphere capable of rendering the expansion complete, without deranging the economy of the circulation.

"Whether useful or not, the means of contributing to the repletion of the lungs with, probably, double the ordinary volume of air, and, consequently, effecting a more perfect oxygenization of the blood, must present to the philosopher an agent of great power indeed. Whether this new agent shall ever become available in practice remains to be ascertained, but in theory it would seem capable of producing novel and important results, in determining revulsion from the interior to the exterior; in difficult respiration; inward congestion; apoplexy; suppressed eruptive diseases of the skin; sudden colds; incipient

fevers, or other affections depending upon the obstruction of the pores of the external surface; in certain female complaints; cold stages of intermittents; in short, in all partial or irregular states of the circulation, the distribution of blood to parts remote from those suffering from congestion, promises to fulfil indications in a few minutes which were formerly but very slowly effected by the lancet, or by existing medicines, and often by the reaction of Nature herself. In many diseases of joints and internal inflammations, further depletions are unsafe, from the danger of debility, though the interior inflammation requires more venesection. Can this new agent solicit the vital fluid from the centre to the circumference, and save it from being drawn off at a vein or wasting uselessly? In my work on 'Heat' I have pointed out the sympathy and connection between the external skin, the medium of almost all impressions, and its continuations lining the organs of respiration and digestion, and how relieving the one instantly affects the others. A convolution of the skin turns in and lines the tubes of the lungs, presenting a surface twelve times more extended than that of the outer superficies of man. A further continuation of this cutaneous membrane lines the alimentary passages throughout all the turnings and windings, and is redoubled over their folds, to an incredible extent. All these sympathies so perfectly and suddenly, that when the exhalation on the surface is suppressed, a rapid revulsion is determined to some inward portion of this great continuous membrane. For instance, in cholera, whatever cause it is 'that poisons up the nimble spirits in the arteries,' dissolves the connection of our elements, contracts and empties the exterior exhalents, and distends those within,—in this plague, the state of the pallid, cold, and lifeless skin, the bloodless branches and engorged trunks, the black and unoxydized blood, the constricted respiration, the compressed abdominal parietes, the suffused nervous pulp and membranes, would all seem to demand some power such as that now proposed to restore the equilibrium of the circulation, without over stimulation: to draw out the blood not to drive it; to fill the bloodless branches, and, in proportion, empty the overloaded trunks; to generate heat from within, not to communicate it from without; to determine from the overcharged inner organs to the empty and wrinkled skin; to impart oxygen to the blood by larger volumes of air, and, consequently, to save the brain from the fatal effects of unoxydized blood. These are some of the effects which I fondly anticipate from the resources now submitted. Whether any of the symptoms of cholera can be mitigated or retarded by this artificial process, remains yet to be ascertained. Besides the almost mechanical results expected from removing twenty or thirty hundred weight off the exterior, there are chemical and electrical considerations which may deserve attention. I observe that the air pumped off from the body whitens lime water much faster than is affected by common air, and therefore, where the blood is black, drawing off carbonic acid gas from the skin may afford beneficial consequences.

"Further, independent of the abstraction of blood from the spinal column and ganglionic nerves, it appears to me that the new process may alter their electrical condition, both by insulating the body, and also by keeping, it some time surrounded by a rarefied and drier atmosphere, and, consequently, modifying the electrical influence of the air on the nervous system.

"As the merits or demerits of this proposal will all present themselves to the physiologist, I need not enlarge further, but conclude by offering the following cases of cholera drawn up by Dr. Hart, the indefatigable superintendent of the Townsend-street Cholera Hospital in Dublin. It is needless to observe, that no hope of ultimate recovery was entertained in either case, and that the mechanism of the bath was so imperfect as to prevent my giving a plan or drawing of it, because any good artist could soon furnish one much more simple and efficacious. Here I may observe, that it will probably be found that steam may be proved the most convenient exhauster, for every inch of steam condensed

will produce a vacuum of air in the bath to the same extent. This can be effected either in the bath or by a small vessel attached by a stop-cock. Some ingenious person may also contrive a small wire frame to cover a person in bed, and draw over it a covering of air-tight cloth, furnished with an oil-leather hood for the head, or else a collar, adapted, air-tight, round the top of the sternum, clavicles, and back of the neck. Here the exhaustion of air might take place to a sufficient extent under the bed-clothes. The exhaustion should be gradual, and if carried further than the elevation of one or two inches of mercury, a common bandage might be folded round the abdomen. Where the cause of cholera affects the principle of life, it is almost hopeless to expect a cure; but when the lesions is not so destructive, some of the effects may be alleviated, and prevented from becoming new sources of progressive derangement in the rapid circle of causes and effects mutually reproducing each other in this alarming malady.

"'Case 1st.—June 30th, 1832. John Keating. * * At fifty-two minutes past one o'clock, p. m., no improvement having taken place, he was placed in the exhausted receiver of Dr. Murray, every part of his body being covered except the eyes, mouth, and nostrils. The pump being adjusted, the exhaustion was commenced, and continued fifteen minutes. After the first ten minutes the breathing became quicker and the breath warm. He expressed himself pleased with the effects produced, and said he was more comfortable and "snug." In fifteen minutes he complained of feeling faintish, and was removed from the apparatus. The body was now warm and moist, feet warm, but hands cold, and the wrists without pulse; no cramps were experienced either whilst he lay in the receiver or afterwards. He felt a little fatigued on being removed, but was revived by the use of a little warm brandy and water. It is evident he has not been injured in the slightest degree by the process. He probably might have derived more comfort and advantage from its use, were it of such a construction as to permit the body being placed in it, and again removed, without much disturbance.

JOHN HART, M.R.C.S.

"'Case 2nd.—James Fitzpatrick, aged fifty, of broken-down constitution and drunken habits. At fifteen minutes to seven, p. m., he was placed in the bath; at this time the radial pulse was imperceptible; the carotid 100; respirations twenty-eight in a minute; temperature of body, at axilla, 82; body universally bedewed with cold sweat; face and extremities blue; voice scarcely amounted to a feeble whisper. He remained in the bath twelve minutes; on being taken out, the radial pulse was distinct, 117; respirations, forty in a minute; body universally warm to his own sensations; by the thermometer the temperature remained the same as noted already, his voice became firm and of the natural tone. At two, a. m., 5th July, his state was thus:—body and extremities warm; pulse 120; respiration twenty-eight; voice natural. He was given some brandy, and also carbonate of ammonia. He remained without any unfavourable change for about twelve hours, when he began to sink; the customary means were employed, but only with the success usual in such cases. He died at five, p. m., on the 5th July, twenty-two hours after the trial of the experiment.

THOMAS FERRAR.'

"'Case 3rd.—John Thornton, ætat, forty-four, ill six hours, laboring under the usual symptoms of cholera, entered July 5th in collapse; pulse at wrist perceptible, in the carotids weak and fluttering; was placed in the exhausting bath in which he remained about twenty minutes; thirst continued, with great impatience for drink; seemed occasionally disposed to sleep, but with no other indication of being influenced by the removal of atmospheric pressure. On leaving the bath his energies seemed to be somewhat increased, but in a little time he fell into that comatose state which, in these cases is commonly

succeeded by death. This morning he appears a shade lighter, and is now (half past three p. m.) nothing worse.

" ' Thornton lived till eleven o'clock next day, after the above notes were taken. The three cases were beyond the reach of art, when at last this process was resorted to, and though death could not be averted, the fatal termination seemed certainly to be delayed.

J. W. M'KENNA.'

"I have the honor to be,

Gentlemen, &c. &c. J. MURRAY."

The following paper, now forwarded to you for insertion in The Lancet, was lately read by me before the Surgical Society of Ireland.

Gentlemen.—

Two or three interesting discussions have already taken place in the Surgical Society of Ireland, on the theory of the effects arising from dissection wounds, and I hope it will not now appear out of place, if I lay before you some outlines of the principles which I think should direct our treatment on those occasions. To those who lament the loss of Dease, Shekelton, and many others, suggestions will not be considered useless on a subject which concerns the safety of the pathologist as well as that of the student of anatomy.

You are well aware, gentlemen, that no plan hitherto devised has been found capable of preventing the progress of any subtle poison to the heart, except that which comprises some modification of "suction." You also know that during post-mortem examinations, when the hands are covered with the most offensive animal matter, suction by the mouth is seldom efficiently practised, and also that it is difficult to employ exhausting or rarefying glasses on unequal surfaces, such as those of the fingers and other parts of the hand. The consideration of these difficulties led me to contrive a metallic case for embracing the whole hand, with an adaptation to render it air-tight, either above or below the elbow, a pipe to connect it with the exhausting syringe, and another to attach it to a mercurial guage which should regulate the degree of vacuum. When the rarefaction is properly effected, it can be continued for any length of time which may be considered requsite for the protection of the patient from the effects of these wounds, as well as the affects of the bites of rabid animals, and other means of introducing deleterious matter.

This plan is certain of being effectual for spaces between the fingers, where the proper suction could not be effected by the mouth, or by any topical instrument. This mode is sure to embrace every scratch about the parts which have been most exposed,—even such, indeed, as are not seen, felt, or suspected. It will not only act as an effectual preventive, if used by way of a precaution, but it will greatly assist the cure, even after the symptoms have set in. Sir David Barry was able to arrest the most violent constitutional symptoms in inferior animals by dry cupping.

Long before the discussion on these matters commenced here, I had put into the hands of your secretary, Dr. Jacob, and others, a prospectus of some lectures, in which I had proposed to explain this, and similar adaptations of the principle; but as the plants require demonstration, in order to become perfectly intelligible, I shall not now trouble you with a description of them.

The value of suction in preventing the introduction of poisons into the circulation, was as well known to the ancients as it is to the moderns, and was much more frequently practised by them. The wound of Philoctetes was inflicted by one of the poisoned arrows of Hercules, and was cured by Machaon by the power of "suction" alone, as we find related in the fourth book of the Iliad. Plutarch mentions that the Psylli and Marsi were hired to attend the camp of Cato in Africa, for the purpose of sucking the bites of veno-

mous reptiles, and that they invariably succeeded in their attempts, at the same time causing the parts to swell, which proved the power of the vacuum they had produced. Hippocrates mentions the use of dry cupping to extract injurious matter from wounds :—

"Cucurbitulæ quæ enim in usum fabricatæ,
Sunt ut ex carne attrahant et avellant;"

and Celsus says, that if it should so happen that the cupping-glasses are not at hand, a man must be procured to suck the part. "Homo adhibendus est qui vulnus exugat.

The experiments of Sir David Barry confirm the opinion and practice of the Greeks and Romans, and even extend so far as to prove that the application of a cupping-glass for half an hour deprives the vessels of their absorbent power during an hour or two after its removal. Modifications of the apparatus alluded to are, in my opinion, much better adapted for affecting this important object on irregular surfaces than any of the usual cupping-glasses.

Upon the subject of diminishing or abstracting atmospheric pressure, I should not omit to enforce the value of forming a vacuum immediately on opening a lumbar abscess, into which vacuum it is easy to elicit the matter by means of an elastic pipe, when such may be required. Without in this way abstracting the atmospheric air from the canal and cavity of the sac, it is almost impossible to prevent the ingress and supposed bad effects of that air.

Around an abscess in a limb you can apply circular pressure, and bring the sides of the cavity into contact; but not so in cases of psoas abcess, where the bones of the pelvis and the irregularity of the passages, prevent the application of such pressure. Besides, every motion of the lumbar and flexor muscles of the thigh, and even the act of respiration itself, tend at intervals to make a vacuum in the sac, into which the air rushes, producing many evils, and causing the absorption of the pus and its vapour or effluvia, which cannot so readily take place if the atmospheric pressure be taken off.

Independently of the value of this principle in the evacuation of matter, air, water, or extravasated blood, it is very advantageous in drawing out such hemorrhoidal or other tumours in or about the anus, as it may be desirable to have fully elongated for the purpose of excision, either by the knife or by ligature.

In a medical point of view, the process of rarefaction may be very important in again determining to the surface those retrocessions of eruptions, gout, rheumatism, and other translations of disease, which frequently are so injurious to the vital organs.

Rarefaction of the air is in many other ways an agent of great power and extensive adaptation; for instance, ladies in whom the development of the breasts is deficient, and who have, consequently, a paucity of milk, may have the supply required, merely by increasing the caliber of the arteries, and of course the determination to, and retention of, the blood in those parts; for milk is but blood altered by the vital and galvanic apparatus of the mammary glands. In cases of small contracted breasts, I have seen the abstraction of one, two, or three pounds, per inch, of pressure, expanding the vessels, augmenting their tortuosity, filling up the mammæ, and producing plenty of milk in healthy subjects. By determining similar plenitude in this manner to the uterine vessels, through the well-known sympathy of the breasts, I have frequently succeeded in causing the menses to appear after long continued amenorrhœa. How rational is this mode of determining the vital fluid through the mammary arteries, when compared with the mode, lately proposed of curing obstructed menstruation by applying leeches, sinapisms, and other irritants to the breasts, and how superior to the plan just now tried in France of eliciting menstruation by sucking the nipple! The French mode only dilates that appendage; mine replenishes it, as well as the whole body of the breast.

Having now spoken of particular applications of this principle, I shall say a few words respecting its general powers. On the 14th July, 1832, I published in the London Medical and Surgical Journal a description of an apparatus for abstracting part of the atmospheric pressure from the entire surface of patients. This proposal was made for cases in which it was desirable to determine the circulation from the centre to the circumference, to open the pores of the skin, induce perspiration, and cause a revulsion of any congestion from the internal organs to the exterior superfices. One of your talented members, Dr. Hall, and his associates, published the result of some trials on cholera patients, who had previously been relinquished to their certain fate at the hospital. Even then the results were sufficient to prove the great efficacy of the principle, for in all cases it rendered the cold and bloodless integuments warm, and the capillaries permeable to the circulation. Many of you, gentlemen, may have seen the apparatus and the publications respecting it. I may observe that in 1835 it is copied exactly by the French, and notwithstanding I had circulated the journal in Paris in 1833 on my way to Rome, yet, like most other imitators, they have misunderstood the theory, and misapplied the practice. They put the patient wholesale into the bath, pump off the air, and let the unfortunate person gasp for breath; whereas all the merit of my plan consists in furnishing the lungs with air of the usual density and pressure, while I diminish the density and pressure on the exterior parietes of the chest and whole surface of the body. At some of my lectures I mean to show this along with the other apparatus.

Leaving the subject of rarefaction, I shall now say a few words on the reversal of this agency, condensation. The influence of increased pressure, and the elasticity of the atmosphere, is a matter of great moment, and one the details of which will admit of vast extension. I am the more desirous to call your attention to this topic, without waiting for the delivery of the intended lectures, in order that I may the sooner submit to your consideration the result of certain trials of the effect of atmospheric pressure. In presence of the respected Vice-President of the College of Surgeons, Mr. White, now in the chair, I instantly reduced a very inflamed, turgid, tender, and most troublesome prolapsus ani without touching the sensitive protrusion. Any of you may see the child at Larkin's, No. 32, Bridgefoot Street, in this city, and it is worth the trouble of visiting. I succeeded in a similar extremely bad case last winter at Rome, after all the usual means had failed in the hands of others. The great advantage of my plan consists in this, that it empties the turgid bloodvessels, and quickly reduces the protrusion, without inflaming or irritating the rugæ or folds of the mucous membrane, and without the painful operation of introducing the fingers, paper cones, or folded cards, as formerly recommended. When the prolapsus is reduced by the pressure of air over a surface of oil, lime-water, or infusion of galls, the relaxed villous coat seldom descends again, and if it do, it returns with the greatest facility, because its veins are comparatively empty and its morbid sensibility subdued, or abated, by the uniform pressure.

It is almost incredible to those who do not reflect, what advantages I have seen resulting from introducing, under a cup, a wet bladder, or some other cover, an elastic compress of air upon tumors and swellings of various kinds. Among these may be reckoned chronic enlargements of the breast and other glands, swellings in the cellular and interstitial tissues, white swellings of the joints, and distentions of the bursæ, bleeding, or fungous sores or surfaces, indurated tumors, and local congestions. Owing to my long absence, I had not sufficient opportunity to try this mode of compression in varicose veins or aneurysmal dilatations; but I have frequently returned reducible herniæ without pain or difficulty.

The modes of pressure recommended by Recamier, Young, and all other writers, are liable to many objections. Their compresses bear most upon the centre and sensitive apex

of the tumefaction, press with great inequality, thin the parietes, and frequently hasten the degeneration of scirrhous enlargements into cancerous ulceration; but, on the contrary, the method here recommended presses equally upon all parts of the swelling, defends the skin from abrasion, compresses the circumference of the part, acting upon the vessels around the tumor, where they are most capable of absorbing, propels away the contents of the veins, and prevents further untoward influx by the arteries. To persons accustomed to the manipulation of valves and machinery, these processes soon become manageable, the degrees of compression being easily regulated by a mercurial guage.

I have already mentioned that Sir David Barry and many others have proved, that the withdrawal of the air by suction or dry cupping, prevents the penetration and imbibition of poisons. I have proposed a reversal of this law, that is, to enforce the absorption of remedies by superadding an artificial atmospheric pressure. Warm or cold lotions, medicated infusions, gases, or vapors, may thus be introduced into the part affected, and the power of imbibition, or percolation, very much increased by well-regulated compression. In this manner solutions of iodine, or its vapor, sulphur, mercury, narcotics, or sedatives, can readily be introduced in local affections or general complaints. In cases of tic douloureux, spinal disease, and sciatic ailments, I purposely detach the scarf-skin, and topically introduce the appropriate remedies by pressing them into the affected tissues, on the principle of transfusion through the membranes. On the other hand, a compression of atmospheric, or any other air, over inflamed surfaces, is well calculated to propel the overflow of blood onwards to the general circulation. I have experienced the good effects of such condensation over erysipelatous and erythematous inflammations.

The arteries of the female breast become remarkably tortuous and distended after parturition. In cases where the mother cannot nurse, or where the child dies, this untoward circulation produces fever and irritation. It becomes, therefore, a matter of great moment to diminish the size of the bloodvessels, and lessen their activity. Cold applications, astringent lotions, and irregular compresses, have been frequently productive of serious constitutional and local injuries, but when you surround the whole mamma by a disk of proper shape, as it were, *insulating* the breast, and pressing only around its base, you cut off the supplies by moderate gradations, and you diminish sensibility by gentle, diffused, and elastic compression. If you prefer soothing or emollient liquids to condensed air, they can be put into the cup or disk at any temperature which is most proper or agreeable. All organs which require sudden increase of activity, and great occasional supplies, such as the womb, the stomach, the spleen, &c., are furnished with tortuous arteries; and this twisted condition increases as the volume and active functions increase. This tortuosity may be designed by nature, not so much to impede the force of the circulation, as to detain and delay the blood in its way though the organs requiring at those periods such extra replenishment. Pressure remarkably diminishes the tortuosity of arteries which supply enlarged or inflamed glands and tumors, approximates the sides of the vessels, abates their sensibility, lessens their contents, and reduces large trunks to the diameter of minute branches. This contraction is admirably calculated to impede and expel a plenitude of blood, to diminish engorgements, and dissipate infiltrations.

Infants may die from leech-bites; the whole family cannot stop the hemorrhage; even the doctors have failed in extinguishing the rushlight. They all knew they could command any quantity of blood to flow by making a vacuum over the bites, but it never entered their heads that it would be just as easy to stop the orifices by making a plenum over them. Three or four strokes of the compressing piston condense the air, and instantly arrest hemorrhage. The by-standers stare, and exclaim, "How curious!" "It is so simple." "We never thought of it before." But it is not only leech-bites that condensation will stop, but uterine and other hemorrhages, whenever compression can be applied by

means of water or other proper liquid, so as to overcome the impetus of the blood. A few inches of mercury indicate a pressure quite equal to this. This condensation you can regulate with the utmost precision, every inch of mercury indicating half a pound of pressure.

By means of well-regulated condensation of air, you can retain the bowels within the cavity of the abdomen, when its parietes have been opened or torn, and you will be able to command the flow of blood from fungous tumors and ulcerations.

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Such, Mr. Editor, is the original paper read by me in the College of Surgeons of this city. In the discussion which followed, I mentioned that I did not wish to appear to prove too much by adducing additional details, but stated, that from the numerous experiments I had made on the comparatively moderate impulse of large arterial trunks, not exceeding two or three pounds of pressure, I should entertain no fear of arresting the flow of blood from any stump or limb, and thus preventing many of the accidents consequent on amputation, secure a close adaptation of the soft parts, prevent turgidity or inflammation, and effect a perfect adhesion by the first intention.

If this principle be extended to such cases, or to lacerated or penetrating wounds torn surfaces, then the medium of water, oil, or some bland fluid, will be the best condition press, condensing the air in the cup, or inverted bell, over the liquid, or in cases of round or irregular parts of the body, pressing the air into a moistened bladder or oiled silk-bag contained in the cup or cover. By these means air is prevented from entering the veins.

I forgot to mention in the paper, that in 1816, I prevented the reaction, consequent tumefaction, heat, and, probably, the sphacelation, of an extensive and dangerous laceration of my right hand (torn by glass in a chemical experiment), merely by maintaining such fluid compression over the bloodvessels as kept them comparatively empty, and all the separated parts in exact apposition.

It is, probably, by diminishing the caliber of the vessels, that cold lotions, affusions, evaporating and astringent washes, were first found useful in inflammations. Perhaps it is the lacing, by the new pressure, after firing, that benefits the legs of the horse. It may be the retraction of the fibres during the shower-bath, and the consequent contraction and pressure of the skin and other tissues, that give tone to the exterior, and impulse to the interior circulation. We all remember the pressure of the plug of blood in the divided artery, and of the clot in the womb. The philosophy of a principle is sometimes much diversified in practice. Although it may be illogical to attempt to prove too much, and imprudent to provoke ridicule (the weapon only of the weak), yet I can assure your readers that in one case where I had dissipated the œdema of a lady's legs by atmospheric pressure, her husband maintains to this day, not only that the swelling was removed, but also that the over-bulky texture of her ankles was reduced to that of a neat and sinewy joint! Whether this mode of assisting percolation be adopted or not, I can refer to the following pages of my work on the "Inhalation of Iodine, &c.*," to prove that the subject of cutaneous imbibition was not now taken up without study and experiment.

As this communication commenced on the subject of priority, it may be proper to settle another claim. I have before me a letter from Professor Duncan, dated Edinburgh, November 15, 1823, from which the following is an extract: "I shall be glad to learn the results of your trials of the inhalation of iodine vapor. It is at least rational." This is exactly five years previous to Sir Charles Scudamore's thoughts upon the subject, for he wrote to me in May 1830, that the idea had first occurred to his mind

* Vide pages 31 to 34, 133. 145 to 147, 157, 180, 181, 301 to 30

two years and a half prior to that date. I have the honor to be, sir, your very obedient servant,

JAMES MURRAY, M.D.

Merrion Square, Dublin, March 11th, 1835.

SUCCESSFUL TRANSFUSION OF BLOOD.

To the Editor of THE LANCET.

Sir,—We beg leave to inclose a statement of a successful case of transfusion, conceiving that it may be interesting to many of your readers, and that it may tend to bring into more general use a practice, the revival of which the profession owe to Dr. Blundell. We are, sir, your obedient servants.

MICHAEL HEALY,

Newmarket on Fergus, Co. of Clare.

JAMES FRASER.

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Mrs. Kitson, ætat, 40, the wife of a small farmer, of strumous habit and delicate appearance, and who had several times been a patient of mine for pulmonary attacks, was confined with her tenth child, under the attendance of a midwife, after a labour of about two hours' duration, at four o'clock p.m., on Friday, March the 6th. I was called to her about half past nine o'clock at night, in consequence of the placenta being retained. On my arrival I found her lying on a mattress, on the floor, before the fire in a most alarming state of collapse. Her countenance was exsanguineous; the lips were livid; the whole surface of the body was cold and clammy; no pulsation was to be felt at the wrist, nor was the slightest action perceptible in the carotids; the intellect was clear, and the respiration but little disturbed. Her position was a most unfavorable one for making an examination *per vaginam*, and from her extreme exhaustion, I was unwilling to have her disturbed. I satisfied myself, however, that the placenta was partly in the vagina and partly adhered within the os uteri. Considering the case to be one of imminent danger, I immediately called to my assistance my friend Dr. Fraser, of Newmarket, a gentlemen of considerable experience and great success in obstetrical practice. Pending his arrival, I contented myself with administering a cordial. In about an hour Dr Fraser arrived, and at that time the symptoms had become rather aggravated; she had had several convulsive attacks, which lasted two or three minutes, during which, and for some time afterwards, her eyes presented a very remarkable appearance, the pupil of the left being dilated to its greatest possible extent, whilst that of the right was contracted to a mere point.

The case at this period appeared to be utterly hopeless, and Dr. Fraser concurred with me in the opinion that any attempt to deliver the placenta, or even to make a vaginal examination, would be attended with considerable risk to the patient. After having continued the use of stimulants for a reasonable length of time, without the slightest impression being made, he proposed to perform the operation of transfusion; in the propriety of which I perfectly agreed.

On explaining our object, and the nature of the operation, to the husband and friends of the woman, they at once consented,—a fact which will confirm, in the minds of those who are acquainted with country practice in Ireland, my statement of the utter hopelessness of the case. About four ounces of blood, drawn from the arm of the husband (a strong and healthy man), were immediately and with great facility injected by Dr. Fraser into a vein in the arm of the patient. In two or three minutes there was a manifest improvement in the expression of her countenance; the pulsation in the carotids became perfectly distinct, and very soon afterwards she declared that she felt herself better. We continued the use of stimulants, which, in consequence of the remote situation of the patient's

residence (nearly four miles from town, and the night awfully tempestuous), were limited to wine and warm whisky-and-water; and, in addition, bladders of hot water were applied to the præcordia, hot bricks to the soles of the feet, and the hands were immersed in basins of hot water. This course was persisted in for about an hour, when the woman declared herself to be much better, and asked if she might turn on her other side. Before we consented to any change of position, we proposed an examination per vaginam. Dr. Fraser made the examination, and found the placenta as previously described. Perceiving that the introduction of his hand brought on slight uterine action, he cautiously and slowly persevered in detaching the adherent portions of the placenta, and after some time succeeded in abstracting it. Its removal was not followed by any hemorrhage. A bandage was then applied round the lower part of the abdomen, and her position was carefully changed according to her wishes. At half-past two, a. m. we retired, after having given the necessary instructions to her attendants. On visiting her again at eight o'clock, we found her much improved. Considerable reaction had taken place, the temperature was natural, the pulse at the wrist was quite distinct, and she expressed the greatest gratitude for what had been done for her. This day (Tuesday, March 10th) she states that she feels herself as well as after any of her previous confinements.

I have omitted as yet to state, that on my arrival at the house of Mrs. K., her attendant informed me that she had had considerable hemorrhage, a fact which of course will account for the state of exhaustion in which I found her. The transfusion syringe used was that of Read and Son of College Green, Dublin.

M. Heal, M. D. and Surgeon.

Clare Dispensary, near Ennis, March 10, 1835.

ENDEMIC DYSENTERY.

The Edinburgh Charity Workhouse was visited with a severe dysentery, in the years 1832 and 3, of which Dr. J. Smith has given an account in a recent number of our Edinburgh contemporary. The house stands in the healthiest part of the town, but the inmates are generally infirm, especially on entering the asylum, though they gain flesh and retain good health while there. The diet is chiefly vegetable and farinaceous, with a small proportion of animal food. During Summer and Autumn, they are usually affected with bowel-complaints "as diarrhea, dysentery, and English cholera." In the Winter and Spring of 1832, when the epidemic cholera was at its height in the Lunatic Asylum, 150 yards distant from the workhouse, the inhabitants of the latter escaped—partly, Dr. Smith thinks, from the rigid quarantine established there! Nevertheless, in July of the same year, dysentery broke through the rigid barrier, and scourged the paupers. That this dysentery was a grade of the epidemic cholera which prevailed in the less healthy parts of the town, is as clear as the sun at noon-day. The following description will satisfy the most sceptical.

"The attack generally commenced with vomiting and purging, pain of the abdomen, and a considerable degree of fever, the pulse in many cases being frequent and sharp, and the skin dry and hot. In others, however, a degree of collapse followed the vomiting and purging, the pulse was small and feeble, the surface cold or covered with clammy perspiration, and the features sunk. In some cases diarrhea went on for several days, when *tormina* and *tenesmus* succeeded. The matter vomited was generally the ingesta or mucus. It was seldom or never bilious. The pain of abdomen varied very much both in degree and in situation, although it was very generally referred to the umbilical and hypogastric regions.

The epigastric region was often the seat of it, and then there was great irritability of

stomach, and vomiting, and a constant burning sensation. In some, the abdominal tenderness was very trifling; but this by no means indicated a mild form of the disease, for the patients to whom this happened, feeling no pain, often allowed the disease to go on till it was in its worst stage. The stage of the tongue was various; at the commencement, when fever was present, it was dry and furred. It was often coated in the centre, but moist and red at the edges. This might be considered the most frequent condition of the tongue. In the most aggravated cases it was dry, parched, and red; and in some, when the other symptoms denoted a severe form of the disease, it was almost natural. Thirst was generally an urgent symptom, but more particularly in the advanced stage of the disease, when there was great gastric pain and irritation. In such cases there was a constant desire for cold water to relieve the burning sensation in the stomach.

The sound of the voice was in many cases peculiar; it was low and whispering, particularly when there were symptoms of collapse. The respiration was not affected in such a way as to be remarked as a characteristic symptom. Tenesmus was present in every case, and in the advanced stages the distress attending it was truly harassing. The desire to go to stool was constant, from the feelings that there was always something in the rectum to be evacuated, and the patient, if allowed, would never have ceased straining.

The appearance of the dejections was very various, but always without bile."

To us it appears, that the above disease was owing to the general epidemic influence then prevailing, but modified by the insulated locality, diet and other circumstances of the institution.

On dissection, the large intestines were found thickened, ulcerated, and otherwise organically affected. The submucous tissue was highly injected These changes were far from being the cause of the dysentery—they were most undoubtedly the *effects*. They aggravated the disease, and were the chief cause of the fatal termination; but, they were not the *cause* of the dysentery. In many fatal cases of typhus, we find ulceration of the bowels; but it is an erroneous opinion, that these ulcers constituted the essential pathology of typhus.

Treatment. Our author having witnessed the good effects of large doses of calomel in Asiatic Cholera, and having failed in his treatment of the dysentery by the more common means had recourse to scruple doses of the submuriate.

"It occurred to me, that between the symptoms of cholera and the endemic I had to contend with, there was considerable resemblance. Both diseases came on in the same way, by vomiting and purging. What was ejected, although not the same in both, yet agreed in this particular circumstances, that it was without bile. There was a burning sensation at the pit of the stomach, along with a desire for cold water in both. The *post-mortem* appearances exhibited this similarity, that the gall-bladder in both diseases was found invariably distended with bile."

The result proved that he was right in his conjectures respecting the affinity of the two diseases. He exhibited calomel in scruple doses, and "the immediate result of the experiment went far beyond my most sanguine expectations." "In no case where the system was brought under the influence of calomel, and ptyalism induced, did a fatal termination ensue."

"The greater proportion of cases not requiring bleeding, the calomel was in general at once had recourse to, in the dose of a scruple, sometimes with the addition of a grain, of opium, to be repeated every four or six hours, according to the urgency of the symptoms, and continued till ptyalism was produced. This effect, if it was to take place, was commonly produced in twenty-four or thirty hours when the calomel was intermitted and a dose of castor oil was ordered.

The immediate effect of the calomel seemed to be to produce a flow of bile into the

intestines, and the stools, which before consisted of blood, mucous, pus, and shreds, now presented the appearance of bile, and were spinach-looking.

As soon as the bile was observed in the stools, an immediate abatement of the symptoms took place—the vomiting and tenesmus were relieved—the pain of abdomen and heat at the pit of the stomach were diminished—and the patient was considered out of danger."

Notwithstanding the large quantities of calomel that were often given, severe salivation did not occur in more than two or three instances.—*Medico Chir. Review.*

From the Medico and Chirurgical Review.

STRICTURES ON THE BROUSSAIN METHOD OF INVESTIGATING DISEASES.

The physiological, or, as it ought rather to be called, the pathological system of nosology, which has been so fashionable, especially in France, for the last five and twenty years, is, like all exclusive doctrines, beginning to lose somewhat of its ascendancy. Some, indeed, of the best physicians of Paris have, ever since its birth, been its inveterate enemies, and clinging to the old order of things with all the pertinancy of devotees, have, through good and through bad report, exerted themselves to shew the extravagances of the modern anatomists. When we mention the names of Recamier, Bayle, Cayol, Gilbert, and Martinet, as disciples of what they themselves call "the Hippocratic school of medicine," our readers will be satisfied that we have not misapplied the expression—"some of the best;" and, perhaps, we should not be far wrong, if we were to extend the list, and to enumerate among these the very man, who, perhaps, of all others, has exalted and promoted the science of pathological anatomy in the present century—we mean M. Andral; for although no one has done so much, and written so well on the subject, yet it is very generally known that he is not "a physiological physician" in his treatment of diseases; he does not, like the Doctor of the Valde Grace, insist that every malady, to which our bodies are subject, is invariably associated with, if not absolutely dependent upon some lesion of tissue or structure which is, or ought to be, appreciable on dissection to the senses; or that this lesion is, in almost all cases, an inflammation, or something like it; and that, when not discoverable by dissection, we may be nevertheless assured, that it did exist during life, and has only been effaced during the agonies of death, or immediately afterwards. No; M. Andral is far too enlightened a philosopher to addict himself to any such absurdities, for well he knows that the animal body is too complicated a machine, and that it is acted upon by too many powers, both from within and from without to be subjected to one lesion, or one set of lesions only. Of a kindred mind is M. Lobstein, the professor of pathological anatomy in the school of Strasbourg, and the author of a very able treatise on this subject. It has been the perusal of this treatise that has suggested the preceding remark; and when we find that those who write best on the all-absorbing topic of the so-called physiological physicians, and who yet do not adopt their dogmas in practice, a strong presumption is naturally suggested that, just in proportion as we become more and more intimately acquainted with the details of morbid anatomy, so do we become less and less confident in our explanations of the proximate causes of diseases. We have not made any allusion to that shining light of English pathology, the late Dr. Matthew Baillie, who is justly admitted by all to have been a consummate anatomist, and, withal, one of the most modest of nosologists: he looked at nature as she presented herself to his view; he did not presume to dictate to her, nor yet to guess and conjecture at those mysteries which she has put beyond the ken of human faculties; but with the mind of a true philosopher, kept his way between the phantasies of the mere dreamers on the one hand, and the audacious arrogance of the dissecting materialists on the other.

But it is time to recur to our author. In one respect M. Lobstein differs most materially

from most modern anatomo-pathologists, in attributing a mighty influence in the generation and development of organic lesions to the nervous system, and to the varying states of the animal fluids. To some deprivation or another of the functions of the one, or of the qualities of the other, many diseases, such as fluxions, congestions, inflammations, &c., are in their first workings attributable. M. Lobstein perhaps carries his ideas of the operation of the nervous system too far, and almost touches upon the domain of the old chemical philosophers, who were so apt to try to solve many of the enigmas of life by referring them to an archaeus, or presiding animus. In one passage he has these words: "if in a physical science it were permitted to employ allegorical images, and to personify the conceptions of our minds, I should say that the nervous influence holds in subjection the universality of the humoral system, and rules it with an absolute power.

And again: "The hypothesis that there exists a peculiar principle, 'd'une matiere imponderable, elaborée par les nerfs, qui en sont en meme temps, les conducteurs,' seems to me very probable; and I suspect that this principle or agent is generated in the pulp of the brain, spinal marrow, nerves, and ganglia."

It is certainly of importance to distinguish well those symptoms of a disease which precede any appreciable alteration of texture, and which may be called "symptomata proegomena," from those which follow, and may be induced by these lesions, and which may therefore be called "symtomata epigenetica." By attending to this distinction, we shall possibly be enabled to discover the point where the disease ceases to be "dynamic," or as it has hitherto been improperly designated, "functional," and where the "organic" alteration or lesion commences.

In our author's opinion "a primitive disturbance of the vital powers invariably precedes all changes of structure, however slight these may be; and hence every disease has been essentially 'dynamic,' before it has become organic." All organic lesions he has reduced under the six following orders:—

1. Deviations from the normal nutrition of parts, either by excess (hypertrophe) or by defect (atrophy.)
2. Change of the position and connection of parts.
3. Rarefaction of the tissues.
4. Generation of new tissues, which resemble some of the natural tissues, or homoiplasia.
5. Generation of tissues, which do not resemble any of the natural tissues or heteroplasia.
6. Generation of morbid products, which may be either organized, and of independent vitality, or quite inorganic. Our readers will find no difficulty in discovering the individual members of these six orders, except perhaps those of the third which includes what M. Lobstein has designated "rarefaction of the tissues;" by this term he means 'the diminution of cohesion between the component molecules of any part, by the interposition of a gaseous or liquid matter in the interstices of the solids." "It is," says he, the most simple of all the alterations of texture, and by it all organic diseases commence; there are five species of it, viz. *pneumatosis*, the disengagements of a gaseous fluid; *hydranosis*, the transudation of a watery fluid; *hematonosis*, the transudation of blood; *fluxion*, or that vital movement by which the blood is impelled with unusual force, and in unusual quantities towards any point; and lastly, *inflammation*.

In reference to this last mentioned morbid process, which has of late years been invested with such an exclusive surpremacy over every pathological change, the following very just observations are made by our author. "If inflammation was the source, and essential element of all organic lesions, these lesions, we may fairly presume, should generally occur in sanguineous temperaments and chiefly during the period of youth, when

organising influence of depressing mental affections: they derange all the functions, in an especial degree, that of nutrition. It is a cheering reflection, drawn from t considerations, that not a few cases of well marked organic disease have been c by a treatment directed chiefly to the establishment of a healthy nutritive process i system.

I have seen tumors gradually disappear, indurations dissipated, ulcers healed, in a v cures almost marvellous, by the employment of mercurials, antimonials, sulphur, &c above all, of thermal waters Formally I was ignorant of the astonishing virtues of t waters, and did not believe that they exercised so penetrating an influence on the mate structure and composition of the body. How often, when I have witnessed of diseases deemed quite hopeless, gradually cured, have I asked myself, whether imponderable principles, like that which resides in the nervous system, might not ex these waters, and impart to them properties 'en quelque sort vitales.'" There is g good sense in some of the preceding observations. The volume is closed wi author's views on the mode of death in disease. "There is," says he, "only one 'mo de mourir,' and that is, the paralysis of one or of more of the principal vital or When the brain is paralysed, death is said to proceed from apoplexy; when the re tory system, from asphyxia; when the heart, from syncope; and when the solar pl from apobithymia."—*Traité d' Anatomie Pathologique; Strasbourg;* 1829.

PLAGUE IN EGYPT.

The political journals of Paris contain an interesting letter from Clot-Bey t Cheruis on the plague now raging with such intensity in Egypt. We select the follo particulars: The number of medical men at Cairo and Alexandria does not exceed tw The greater part of these are contagionists in a high degree, who cover themselves oiled silk, and only touch their patients at a distance. At Cairo there are three F and one Spanish medical men, who treat plague cases. They visit their patients as i latter were affected with an ordinary disease, and they take no precautions of any against contagion. The time devoted by them to each autopsy is nearly three h

appearance which is generally described by authors and painters. After death the arteries are found empty, and the heart filled with dark blood. The spleen is very much engorged, and often of double its natural volume, and softened. The kidneys are of dark blue colour, and the stomach always contains a dark fluid, its membrane being much injected with spots, like petechiæ or ecchymosis. The intestines exhibit the same appearance. The lymphatic glands are always engorged, and exhibit a volume five or six lines larger than natural; their tissue is soft, and of a dark blue. The same change is seen in all the glands along the vessels of the abdomen and chest. There is engorgement of the sub-arachnoid veins, but with this exception, the parenchyma of the brain and spinal marrow do not present any remarkable change, save in two or three cases when it appeared a little softened.

The physicians of Alexandria do not believe the disease to be epidemic, while, on the contrary, M. CLOT-BEY and his friends are convinced of its being so. He does not attempt at present to decide the question of contagion though he evidently leans to the side of non-contagion; but he observes that six physicians, besides students, attendants, &c., have been in the daily habit of touching and dressing the patients without any one of them as yet having been affected by the disease. M. CLOT-BEY promises a full account of the epidemic, if (as we sincerely hope he may) he should be fortunate enough to escape its ravages.—*Lancet.*

A SECRET OF LONGEVITY.

The following ancient recipe is recommended to all who value life, a cool head, and equanimity of temper. At present when fanaticism, excitement, and violence, are epidemic, it should be administered morning, noon, and night.

"Admiration and light contemplation are very powerful to the prolonging of life, for they hold the spirits in such things as delight them, and suffer them not to tumultuate or to carry themselves unquietly and waywardly. And therefore all the contemplators of natural things which had so many and so eminent objects to admire, as Democritus, Plato, Parmenides, Apollonious, were long-lived; also rhetoricians which tasted but lightly of things, and studies rather exornation of speech than profundity of matter, were long-lived, as Gorgias, Protagoras, Isocrates, Seneca, and certainly, as old men are, for the most part talkative, so talkative men do often grow old; for it shows a light contemplation and such as does not strain the spirits, or vex them. But subtil, and acute, and eager inquisition shorten life; for it tireth the spirit, and wasteth it."—*Bacon's History of Life and Death.*

A mule was produced from Lord Clive's female zebra; a male ass was frequently put to her, but she always maddened with indignation. At length some one suggested the idea of painting the ass; so said, so done; the ass was painted in a masterly manner, and the masqueraded lover absolutely gained his point without difficulty. She was fecundated, the offspring was a true mule, but streaked, finely zebra-fashioned. To this we may add the folowing fact:—A blood mare, the property of Lord Morton, was fecundated by a quagga, a streaked animal, about the size of an ass, common in southern Africa. For five subsequent seasons a black horse was admitted to the mare, and although she had no other interview with the quagga, each of the foals was striped with the colours of that animal, and, what is more remarkable, the fifth more than the fourth. Drawings of the mare, the quagga, and the progeny may be seen in the Council-room of the College of Surgeons.

DEATH FROM FLOODING.

The following interesting extract from Dr. Rigby's lectures on the principles and practice of midwifery, exemplifies in a powerful and impressive manner, the necessity of watching the patient after parturition, until after the uterus shall have *permanently* contracted.

Many years ago, a most unfortunate case occurred to the celebrated Boer of Vienna, from not having sufficiently attended to whether the uterus remained contracted. He had just returned from a journey made at the expense of the Austrian Government, during the reign of the late Emperor Joseph II., during which he had visited England and France, and had particularly attended the Schools of Midwifery in London under Dr. Denman and Dr. Osborn. On his return to Vienna in 1789, he was made Accoucheur, and, what we should call here Serjeant-Surgeon to the Imperial Family, besides being appointed Professor of Midwifery, and Chief Physician to the celebrated Lying-in-Hospital of Vienna. In the following year he was appointed to attend the Crown Princess Elizabeth, first wife of the late Emperor of Austria, in her first confinement. She had a long and tedious labour of two days and nights, during all which time, as long as he was in her presence, the etiquette of the Imperial Court required that he should remain standing. You may, therefore, easily imagine how excessively fatigued he must have been. Boer, nevertheless, from his anxiety to prevent even the risk of anything untoward occurring after labor, declared his intention of watching at the bedside of the Princess all night. This she strongly resisted, perceiving that he was quite exhausted with fatigue, and after some entreaty he yielded to her request, and retired into the next room to take some rest. He did not, however, comply, until two of her ladies of honor had promised to watch by her all night, and to call him the instant anything should happen. They agreed to take it by turns; one watched while the other slept, and the Princess soon fell into a sound sleep. The lady who watched was pleased to find her mistress enjoying so refreshing a sleep after her long protracted sufferings; she was pale it is true, but how could that be otherwise after what she had undergone? The perspiration stood upon her face and forehead which the Countess wiped off as gently as possible so as not to disturb her. The Princess breathed hard, and began to snore slightly, but that only told her attendant that she slept. This snoring, however, became less and less natural, until it rather resembled rattling in the throat. The Princess was deadly pale, and in a moment after, to the horror of her unsuspecting attendant, became evidently convulsed. A scream from the terrified lady instantly brought Boer into the room, but it was too late, for in a few minutes after the Princess expired. The bed under the clothes was found deluged with blood; she had died from hemorrhage. Either from the warmth of the bed, or some other cause, the uterus had ceased to contract, and had become soft, the pressure from the orifices of the uterine vessels had been removed, and they had continued to pour forth their contents until she had flooded to death. This unfortunate event embittered Boer's whole life; it was one of the first cases which he had attended since his return to Vienna; and from the high favor in which he stood with the Emperor, and from the high appointment which he had received from him, there was no want of envious and malicious tongues to invent abominable falsehoods against him. Boer has retired into the country near Vienna, and has never recovered from the shock.

It is an old saying in Germany, that a primipara should not be allowed to sleep for the first twelve hours after her labor. This must not be taken in the literal sense of the word but rather be applied to her nurse, who should examine the bed, &c., every now and then, to be sure that no hemorrhage is going on. It is impossible to say when all chance of

flooding is gone by. I have seen a case of severe flooding ten or twelve hours after labor; and Professor Naegele informed me of a case where a young lady of rank flooded to death twenty-four hours after delivery. Baudelocque says "I have seen this accident not appear till the eighth day after delivery, and in another case not till the thirteenth. The uterus was soft to the touch, its neck was flaccid, and the hand might easily have been introduced."

REPORT PRESENTED BY THE COUNCIL TO THE SIXTEENTH ANNIVERSARY MEETING OF THE HUNTERIAN SOCIETY. 1835.

We have been highly gratified with this report. Its objects and utility are unfolded in the preface; it is to present the members of the society and the profession with a concise yet perspicuous outline of the result of the proceedings during the preceding year. The advantage of those societies are incalculable,—varied talent and experience are brought to bear upon one point. The abstract of the cases presented to the society and of the essays read is of considerable interest. We shall cull a few of them for the benefit of our readers:—

"*Nervous System.*—A paper was read on the distribution and functions of those nerves said by Sir Charles Bell to derive their influence from the tractus respiratorius. The author adverted to the fact, that the sympathetic nerve is formed before any one part of the fetal animal, so that at birth the functions of assimilations, circulation, secretion, respiration, and voluntary motion are under its government. The author endeavoured to show that the precise central origin given to the respiratory nerves does not exist, but that the peculiar powers of those nerves are derived from their connection with the sympathetic. An interesting discussion, in which some experiments and physiological observations were adduced, in corroboration of the author's opinions, ensued on this communication.

"*Heart,*—instance of hypertrophy of, with ossification of the mitral valves. In this case there was pulpiness of the mucous membrane of the stomach and bowels, and a loaded state of their vessels; which, with some suspicious circumstances preceding death, led to an apprehension of poison. It was shown, however, that such appearances in the alimentary canal are not unfrequently observed after death from disease of the heart.

"*Heart ruptured,*—several instances alluded to, in some of which the patients lived twenty-four hours. In others death was instantaneous. The rupture most frequently happened in the left ventrical.

"*Aortic valve,*—instance of its rupture in a boy, from his being frightened at the report of a pistol. He instantly felt pain at the region of the heart, soon became dropsical, and died in a year and a half.

"*Lungs,*—a paper was read on the question whether the parenchyma of the lungs, or the lining membrane of the cells, is the seat of pneumonia. The author believed that what is called inflamation of the substance of the lungs, or pneumonia, is not inflammation of the parenchyma, but of the membrane lining the cells. Also that the inflammation is of two kinds, the plastic and non-plastic, with intermediate varieties. In the former organisable lymph is thrown out; in the latter there is a grey secretion, which gives the diseased portion the name of grey hepatisation, and is much like Castile soap. The products of this inflammation are unorganisable. These two conditions are said to differ, *ab initio*, and to require different treatment—the plastic bleeding and mercury, and the non-plastic stimulants.

"*Intestine,*—case in which the duodenum was perforated by an ulcer. The patient had resided in warm climates, and was attacked two hours after supper with acute pain in the epigastrium, and about the right shoulder. There was scarcely any affection of

pulse. The contents of the intestine and stomach had escaped. The differences between rupture and perforation were alluded to. It was stated that in rupture the mucous membrane invariably curls over the rent peritoneum, but in ulceration the lesions of the mucous membrane usually extends beyond that of the serous. Ulceration of the bowels was considered of frequent occurrence in persons who resided in hot climates. Rest and opium were considered to afford the only chance of closing the opening, whilst the inflammatory stage is to be relieved by venesection.

"A few cases of ulceration of the duodenum were mentioned, in which obstinate vomiting had preceded death. Other instances were related in which the adhesive inflammation had limited the effusion.

"*Intestinal hemorrhage*,—with immense discharges of muco-purulent matter.—A case was related in which alum injections, and acid astringents by the mouth, had been serviceable.

"*Liver*,—a large hydatid cyst of, was exhibited to the Society. The female from whose body it was taken was sixteen years of age. It had been several years in formation, and hemorrhage from the bowels took place before death. The cyst was attached to the right side of the liver. Its outer covering was formed of the peritoneal coat of the liver, and within this was a second cyst which contained three hydatids.

"In another case a young woman had enlargement of the right side. At length she began to expectorate small hydatids, tinged with bile. This expectoration continued for three months, and then she recovered.

"In another instance small nodules were felt over the hepatic region. They disappeared by purging. It was supposed that they were hydatids, and had passed by the biliary ducts.

"The question of treatment involved considerations as to the safety of tapping, or of opening the cysts more freely. By some it was thought tapping would hazard great constitutional irritation, and, perhaps, suppuration and sloughing of the sac. When these cysts are near serous cavities, it was considered as, usually, better to let them alone unless a free exit can be given to them. A case, however, was related of the successful removal of three quarts of colourless fluid from an hydatid cyst by trocar. The patient was greatly relieved for a year and a half. Then came on cough and expectoration, and he died. The liver was changed into irregular clumsy masses, so that with its greatly thickened peritoneum, its natural character could not be discovered. It was converted into two thick cysts, containing very numerous large and small hydatids, the lower cyst was firmly contracted on several dead hydatids, and in the upper cysts there were numerous living hydatids. This upper cyst communicated, by an aperture through the diaphragm, with the right lung, where there was a large abscess containing shrivelled hydatids.

"It was mentioned that spontaneous cure sometimes occurs. The hydatids shrivel up, the cyst contracts, and remains dormant unless inflammation be excited, when the whole cyst may slough. Two fatal instances of this nature were adverted to.

"Could it be ascertained that adhesion had taken place, it was thought it would be safe to open with a scalpel.

"The importance of correct diagnosis was pointed out, and in aid of this it was mentioned that the specific gravity of the fluid of ascites is to that of hydatids as 1014 to 1001, and that the fluid of hydatids contains no albumen.

Veratria,—some cases in which it failed to give relief, others which it had aggravated, and some in which it had proved beneficial; but the concurrence of testimony was, that its powers had of late been unduly extolled.

"*Colchicum*,—an extract of the acetate was mentioned as deserving of high commendation; and the powder of the root, in doses of five grains, was reported as an efficient

form of the remedy. The addition of quinine had been found available, when either apart had not succeeded.

"*Iodine* was brought under observation as a valuable remedy in secondary syphilis, and in affections of the skin and throat where mercury cannot be used. In one case of two years' standing, the utmost advantage had resulted from one grain of iodine and ten of hydriodate of potash, with sarsa, twice a day, for a month."

DEATH IN CONSEQUENCE OF FASTING.

By Professor de Walther.

The Professor of Munich reports a case of a man, 29 years of age, whom he attended for amaurosis, and who was afterwards under the care of an individual who undertook to cure him by fasting. M. W. B. de D—— for some weeks took no solid food whatsoever and nothing but water, except an occasional cup of tea. His body weighing before this treatment 130 pounds, was speedily reduced to 97, and to a state of complete emaciation. He died of nervous apoplexy, without having been cured of his amaurosis.

Post Mortem Appearances.—Total want of blood; secretions serous and bilious, regular; between 8 and 10 ounces of serum in the pericardium; the lungs dotted with a great number of tubercles, some of which were approaching a softened and ulcerated state; no inflammation in the intestines, which were contracted and shrunk throughout their whole length, especially at the transverse colon; all the organs of the chest and abdomen in a state of atrophy; the brain and spinal marrow were healthy.—*London Med. and Surgical Journal.*

SPONGEOUS TUMOR.

Of indeterminate character, affecting a woman forty years of age, and much addicted to drinking and venery. The malady was of three years duration, characterised by dyspnœa, which continually increased ended in suffocation and death.—*Archives Generales, August*, 1824.

CASE OF PROTRACTED PREGNANCY.

Mary Stretton, aged 27, the mother of five children, states that from the circumstances which attended her, during her last pregnancy, she believes that the period of gestation was protracted at least five weeks beyond the full course which attended her four preceding instances. She was delivered on the 26th of February last of a fine male child, well formed, and possessing general appearances corroberative of the testimony of the mother, and which weighed twelve pounds avoirdupois. She never menstruated between the two last children, contrary to her former habit, and believes she was two months advanced in pregnancy of her fifth child before she had weaned the fourth. There was no other particular variation in the symptoms of her last pregnancy from those of her former ones except the duration, and the circumstance of her not menstruating. The right leg began to swell during the second month of her pregnancy of this as well as of all her other children; her stomach began to be affected in the usual manner and at the same time, and her "reckoning" was accordingly to terminate at the usual period. She had made preparations for her lying-in, such as obtaining a grant of linen from a bed-lying charity, and had given in her statement when she should require it correspondent to her present history. She had never been deceived in her calculation as to the exact period of her pregnancy, nor does she believe she can be deceived in the present instance. Her other children were full sized at their birth, and are still living. She was under

continual "fear of herself," for the last month or more of her time; felt confident something was going on wrong, and frequently expressed herself to her mother that such was her belief and conviction that she was going a good deal beyond her time. She was, however, safely delivered on the 26th of February.. It is proper to observe that an accident befel her (dislocation of her ankle) when she considered herself six months gone with child, which compelled her to keep her bed upwards of three weeks. This circumstance she frequently lamented to me during my attendance, as being likely to interfere with her labor, which she expected in three months, and her size and appearance justified her predictions; but upwards of five months elapsed before that event took place. The above inquiry ensued in consequence of the voluntary observations of the patient relative to her belief of her having so far passed the usual period.—*London Medical and Surgical Journal.*

CASE OF DEMENTIA, WITH SLIGHT GENERAL PARALYSIS—SOFTENING OF THE CEREBRUM.

— Manche, aged 32 years, appears to have enjoyed good health, but is now suffering from the consequences of his complaint. When asked his age, he replies about twenty, but at the same time avers that he is older than his brother, who has reached the 40th year; the apparent contradiction ceases, for Manche declares that he died some time since, but had afterwards the good fortune to return to life. He is exceedingly rich, having many millions to meet even his daily expenses; he is very happy, a prince, and will only consort with princes. From the moment in which he enters into conversation with any one, he grants him honors, estates, and castles, in order to raise him to his own level. It would have been fortunate if Manche were always thus satisfied, but, as partaking of the doom of mortality, he also had his troubles; he would cry like a child at the slightest contradiction. He is constantly demanding an increase in the quantity of his food, and a man who possesses millions is happy when he gets a little wine. Manche would not refuse even a sous, as it would render his royal existence more comfortable.

He never speaks of the previous part of his life; nevertheless, by drawing his attention to it, and keeping it fixed, as it were, on that point, some part of his history may be obtained.

He was born at Coulommiers; at fifteen he was bound to a tailor, but he gave up that employment for that of a cook, and soon afterwards he became a soldier. He does not know how old he was when he was married; he intended to marry his two daughters, and then one of them only, as he was given to understand that polygamy is punished by death. He afterwards married the daughter of Charles X. We give here a copy of the letter he received from the princess. "Louis Pierre Francois Manche Isidore, I love you as my eyes, and my father, the King of France, also loves you; come and constitute my happiness, as I shall be your's, at Clichy, our first rendezvous." And Manche employed ten thousand deer, galloping like the devil, in order to arrive at Clichy, after having traversed ten thousand leagues, and nevertheless, according to him, Clichy was only half a league distant.

His wife is a seamstress; he frankly acknowledges it when questioned on the subject.

Manche was asked how many children he had, and he replied at first seventeen; but when afterwards questioned as to how many boys and girls, he said two boys and two girls. Returning then to his riches and honors, he remarked that one fine day, no later than yesterday, he called upon his father-in-law, Charles X., and said, "by the bye, sir, you have given me your daughter, but when shall I have her dowry?" "You are quite right," replied the king, and immediately showered dignities, decorations, millions, &c., on him.

Manche died lately, and the appearances after death were as follows:

The cranium was remarkably thin; the cerebrum did not fully distend the dura mater; its anterior part had fallen into folds. The arachnoid contained about an ounce of sangoinolent serum, and this membrane, as well as the pia mater, appeared to be thickened; they are of an opaque white color; these membranes were very adherent to the cerebrum, especially near the Pacchaonian glands, so that when they were separated, portions of the brain were torn away with them. The cerebrum has undergone softoning, but the medullary portion has suffered the least. The lateral ventricles are of their ordinary size, and contain about an ounce of serum. The thalamus opticus and corpus striatum of the left side are normal; on the right there appears to be the remains of an apoplectic deposit in the right thalamus, and all around, the cebral mass is considerably softened; the tuber annulare and cerebellum are healthy.—*M. Ferrus's Clinical Lectures on Mania.*

HOTEL DIEU.—NEW SPECIES OF ENCEPHALOCELE, NEVER YET DESCRIBED.

Observations at the Clinic of Dupuytren.

There is a species of Encephalocele, of which medical writers have as yet given us no description, at least as far as I know; the ambiguity of its diagnostic may perhaps be the reason:—but to the point.

Towards the begining of 1833, an infant of eighteen or twenty months old, of good constitution and in good health, was, with its mother, received into the Hotel Dieu for the cure of a wen about the size of a nut, situated at the root of the nose, exactly below the nasal spine of the os frontis. It had every appearance of a small cyst; was movable at its base without change of color to the skin; not pulsatile; indolorous, resisting pressure, and somewhat like a little horn. The skin of both lachrymal sacs was slightly raised, and the nose very much flattened; in short, from its appearance, it was at first considered as a simple encysted tumor, such as is not unfrequently found in the same region, and an operation was judged necessary.

But, on questioning the mother, it appeared that this tumor had existed from the hour of the child's birth; that at first it was about the size of a pea, had increased by insensible degrees, and always appeared swelled and rather discolored when the child cried; and, finally, that some country surgeon had advised the cure of it by caustics. It may not be irrelevant to add, that the disposition of the child was in a remarkable degree irascible; a circumstance which has characterised every case of encephalic hernia, whether congenital or accidental, that ever came within my observation. In no other respect was the child remarkable.

From all circumstances, then M. Dupuytren suspected that this tumor was a prolongation of the brain through some congenital cleft in the base of the skull; yet it was neither reducible in size, nor pulsatile, though a strong pressure of it by the finger gave pain and general agitation, but no remarkable encephalic symptoms. On displacing the base of the bone, a certain unusual rugosity was felt on the margin of the upper bones of the nose, but no osseous opening could be readily traced, nor was that surprising, as in many cases of encephalic hernia, the progress of ossification will reduce the hole of communication to extreme smallness.—Camper, Ruysch, Astley Cooper, Nannula.

Aware that M. Breschet, as surgeon of the Hospice des Enfrans Touves, had many times dissected the bodies of children, M. Dupuytren anxiously sought his opinion on the case.

M. Breschet declared that he had himself met with a case exactly similar; that autopsy had proved the tumor was formed by a portion of one of the anterior lobes of the brain

prolonging itself through a central cleft of the ethmoid and spheroid bones to the root of the nose. A design had been taken of the case, which he exhibited, and it was the exact counterpart of the one in question.

The mother of the child was of course forbidden ever to suffer any operation to be performed on the tumor, a slightly compressive but continued bandage being all that was necessary, and which might by possibility reduce it in time.

Congenital encephalocele had already been observed in several parts of the skull; but I was not before aware of the possibility of the formation of these tumors through a cleft of the base of the skull to the root of the nose. These hernix, then, from their deceiving appearance, demand the greater attention from the practitioner, as a sanguinolent or caustic operation on them might prove fatal.

Professor Lallement, of Paris, it is well known, believing that he was operating on a small wen in the nape of the neck of a young lady, found on dissection that it was a prolongation of the cerebellum through an opening of the occipital bone. The young lady died.

About the same time another case of apparent wen appeared in one of the hospitals, and the surgeons were about to operate upon it, when the young lady's fate opened their eyes, and they desisted. I myself saw another instance in 1827; it was in the Hospital of Incurables at Naples; the tumor was on the temple, near the corner of the eyebrow, and had every appearance of a wen.

It would appear, from several facts verified by dissection, that congenital encephalocele may arise not only in the sutural region of the skull, but also about its anterior part.

It is necessary to add, that in aid of this malady I have invented a little concave compressive shield of caoutchouc, which can be adjusted to every form, size and region of the tumor. By means of this instrument, which is fastened on with a ribbon, a very gentle but sufficient compression may be continued on the tumor. Its advantages I took occasion to illustrate some days ago in my public ophthalmic lectures, by several examples of individuals with inoperable tumors in the region of the eye, by whom it is used.

But I must not close this observation without some notice of M. Velpeau's last reply.

In the *Gazette des Hopitaux* of 28th March, he does me the honor to reply to me through the medium of Dr. Berigny, that, before the publication of my Memoir on the crosic crackling swelling of the fore arm, he was already acquainted with the malady in question, &c.

I rejoice on having forced M. Velpeau to tear away the veil which covered the question. It is very evident from the passages reported by Dr. Berigny, and the two memoirs which I had cited, that M. Velpeau was altogether very much in error, when he lately assured the "Society of Emulation" that no one had spoken of that malady before the communication which he was then about to make before that learned body. This is precisely the error with which I would combat; and the note of Dr. Berigny another:—he attributes to M. Velpeau the idea of making patients afflicted with intra-capsular fracture of the neck of the thigh walk as soon as possible. The gentlemen are both totally mistaken, for the merit of the matter rests solely with Sir Astley Cooper; *he* it was who first suggested the idea, as may be seen in his admirable work "On Dislocations and Fractures of the Joints," written more than ten years ago. Besides M. Velpeau cannot have forgotton that the idea which he thus appropriates to himself was discussed by me two years ago in a work published in Paris—"*Memoire sur les Fractures du Femur, Trans. Med. March*, 1833."

REVIEW.

The Clinique Medicale; or Reports of Medical Cases. By G. ANDRAL, Professor to the Faculty of Medicine of Paris, Member of the Royal Academy of Medicine, &c., &c. *Condensed and Translated, with Observations extracted from the Writings of the most distinguished Medical Authors.* By D. SPILLAN, M.D., Fellow of the King and Queen's College of Physicians in Ireland, Member of the Association of the Fellows and Licentiates of the College of Physicians, and formerly Physician to the Dublin General Dispensary. London; Henry Renshaw.

(*Second Notice.*)

In adverting to Dr. Spillan's translation of "Andral's Clinique Medicale" in our last number we made few observations on its merits; we felt more anxious that the readers alone should judge for themselves; it was therefore that we presented the extracts that they might carry their own weight—might convince with more potency than any eulogia of ours the value of the work. No argument like matter of fact is, said the witty Butler; in this case we appreciated justly, we doubt not, the merit of the maxim. Theories of disease have been propounded,—doctrines have been borne upon the wings of imagination,—and conclusions had preceded facts, in such wild confusion, that the mind has really become bewildered often in its own perplexities. We want facts, is the common outcry, we do not want hypotheses; we want demonstrative proofs that certain doctrines are correct;—let us see what are your premises that we ourselves may draw the inferences, is the common declamation.

Experience is our guide; and though the result of any man—of Andral, or an equally experienced and celebrated physician, may differ from ours, we will accede to his positions provided he presents us with tangible proofs. This is all we ask for. These are our sentiments, and they are no doubt the sentiments of nine-tenths of the profession.

We have in the present work an illustration of the various forms of internal disease—of manifold phenomena—anomalous symptoms; yet each and all explained on the accredited principles of physiology. Why is there pain in a part remote from the seat of diseased action? Wherefore does it arise? How is it to be accounted for? questions, it is admitted, involved in obscurity—questions which may be answered, however, satisfactorily to the minds of the present generation, yet may be laughed at by the casuist, and exploded by hereafter pathologist. We expect too much; we talk of man's perfection; we believe ourselves to be what we are not—wise men, or fools: we know we are neither. But to the work before us. There never, perhaps, was one which deserved greater credit as a production intended to elucidate the nature of disease contrasting external signs with autopsic appearances. It is an excellent exemplification of demonstrative science and of the system of Bacon—inductive philosophy.

Isolated portions of a work sometimes afford no index whatever to the value of the whole. Sometimes, however, a few quotations from its more prominent parts evince, in a very general, nay often in a graphic manner, the tenor of its contents. It is for the latter reason we give such copious extracts. We shall, nevertheless, as we have previously noticed the work, give but one concluding extract from the present part. After enumerating a number of cases of disease—cases which are met with in the practice of every one, displaying anomalous and varied phenomena, we have the deductions, from encephalic disease, witnessed of course, on an extensive scale.

"*Remarks.*—A considerable number of cases have been recorded relative to tumors of different kinds developed in the cerebellum and around it, and which, in either situation,

must exercise an influence on the functions of this organ, whether it be irritated, compressed or disorganized by them.

"We have found scattered, in different works, thirty-one cases of this kind. In all these cases, the tumors formed in the cerebellum or in its membranes, were sometimes cysts containing solid or liquid substances of different kinds, sometimes fibrous masses, sometimes tubercular or cancerous products.

"In the great majority of these cases, the intelligence was preserved intact during the entire course of the disease; only that frequently a few days before death a state of coma was observed, which sometimes might be accounted for by considerable injection of the entire encephalic mass, or by the presence of a great quantity of serum in the ventricles; sometimes no lesion was found which could account for it; in the latter case it is probable that a moment arrives, when, either by its greater development, or by the sole fact of its prolonged existence, the affection of the cerebellum will produce a reflected effect on the rest of the encephalon, and seriously disturbs its functions; for there is certainly a consent of action between all the parts of the encephalon, and one of them cannot be for any time altered without the others ultimately feeling it.

"Seven patients only, out of thirty-six, presented, long before death, a marked disturbance of the intelligence.

"One of these patients, a female, thirty-five years of age, was an idiot from birth. The right lobe of the cerebellum was compressed by a tumor which had its origin in the occipital fossa. It might be supposed that the idiotcy was caused by the embarrassment of the cerebral circulation; but is it probable that this tumor existed from birth? Now, the absence of intelligence was dated from this period. It is not, then, probable that, in this case, the lesions found in the cranium were the cause of the idiotcy.

"Another patient exhibited a loss, at first temporary, but afterwards permanent, of the memory of words. There was found in this individual an encephaloid tumor in the centre of the right lobe of the cerebellum, nearer the lower than the upper surface. A great quantity of serum also distended the lateral ventricles.

"In three other patients, a general weakness of intellect was noticed. In one of them the right lobe of the cerebellum was compressed by a tumor which belong to the dura mater; some serum dilated the ventricles. In the second an encephaloid mass seized on the posterior and inferior part of the cerebellum, as well as the medulla oblongata: In the third, a tubercle of an inch and a half in diameter was developed on the upper surface of the cerebellum, in the median line.

"In a seventh patient, some delirium was observed. Did this delirium, which was of short duration, depend on the tubercles found in the left lobe of the cerebellum? Was it not rather the result of the injection which was detected in the pia mater of the base of the brain? Such are the only cases in which the intelligence presented any perceptible disturbance. The disturbances of motion are much more frequent.

"Out of our thirty-six cases, there are but eight in which motion was not in some way disturbed.

"Complete or incomplete paralysis was observed fifteen times.

"In this number there were but four who had hemiplegia; it took place on the side opposite to the lesion of the cerebellum in three cases, and in a fourth the two lobes were diseased.

"Paralysis was also observed four times. In these four cases the cerebellum was compressed or disorganised, either in its two lateral lobes at once, or in its middle lobe. In one of these cases the medulla oblongata participated in the alteration of the cerebellum It is remarkable that in these four cases the paralysis particularly affected the lower

extremities, whilst the upper extremities enjoyed all their freedom of motion, or else had undergone only a debility always less than the lower extremities.

"Two patients presented a paralysis, or at least a considerable debility of the four extremities. In one of them, a tubercular mass, developed at the base of the cranium, compressed at once the cerebellum and spinal marrow; in others the two lateral lobes of the cerebellum contained tubercles, but they were twice as large in the right lobe as in the left; and the feebleness of the limbs was greater on the left than on the right; so that this case of general paralysis may again serve to prove the crossing influence of the lobes of the cerebellum.

"The paralysis of the face, which we met once in one of the cases belonging to ourselves isolated from ever other paralysis, was connected with the existence of two tuberculous masses; the one developed on the left lobe of the cerebellum, and the other at the posterior surface of the spinal marrow.

"There remain four patients, of whom nothing else is said with respect to motion except that *they gradually become debilitated.*

"Involuntary contractions affecting a greater or less number of muscles were observed more frequently than paralysis; we met twenty-two cases in which these contractions were found to exist. In fifteen of these twenty-two cases the entire body was agitated at intervals by convulsive movements, which became more and more frequent, and it was often in the midst of violent convulsions that the individuals died. Some, and that was the greatest number, retained their consciousness during the continuance of their convulsions; others lost it suddenly, and they presented the symptoms which characterize an attack of epilepsy. In these patients the lesions occupied different seats, sometimes confined to a single lobe of the cerebellum, sometimes extending to the two, sometimes occupying also the medulla oblongata.

"The movements of the tongue were embarrassed in only two cases, and in both it results from the seat of the lesion, that the nerve of the ninth pair must be compressed or disorganised by the tumor pressing on the cerebellum.

"In the thirty-six cases which formed the subject of our analysis, the sensibility presented disturbances not less varied than the power of motion.

"The general sensibility presented no disturbance in the greater number of the cases: sometimes, however, it exibited a remarkable exaltation, whilst at other times it was completely abolished.

"Not merely the general sensibility has been modified in some of our thirty-six patients; occasionally, also, the organs of the particular senses have been found affected; thus in one case, deafness was observed; and in six, vision was either completely destroyed, or very much weakened.

"Among the organs of the life of nutrition, the stomach is the only one which presented a phenomenon deserving of particular notice, with respect to its frequent reproduction;—this phenomenon is vomiting: it was observed twelve times in thirty-six cases.

"If you now consider these twelve cases with respect to the nature and seat of the affection of the cerebellum, you will find nothing different from what was to be seen in the twenty-four other cases, where there was neither vomiting nor nausea. *A priori*, we should not expect to find this peculiarity of either seat or lesion; for in all this volume, in connection with lesions the most different, as well those of the meninges as those of the nervous pulp itself, we have seen vomiting show itself as a common effect of a crowd of affections of the encephalon. Can it be said that when it is produced, the brain is in the same condition as when it does not occur? Certainly not, for a different effect cannot be comprehended but with respect to a different cause; but these conditions we know not;

they escape us just as those interior changes of organization have been removed hitherto from our researches, which changes, coming to be connected with identical lesions, render their effects so variable. Certainly, the inconstancy of the effects here can only be owing to the variety of causes. To ascertain those causes, it would be necessary to interrogate each cerebral fibre, first considered separately, and then traced in its connections with other fibres. It is in this double point of view, that we think the pathology, as well as the physiology, of the brain should be studied. It is, on the one hand, a great whole, composed of a number of parts, each of which performs a special act; but, on the other hand, these different parts are intimately connected with each other, so that they are mutually bound together. Hence it follows, that in the point where a lesion is discovered, the direct cause of the effects which it produces does not always reside, and according as it re-acts on such or such other points especially destined for the performance of a certain act, it is this which will be found modified. If then it happened that we succeeded in discovering in the encephalon a certain number of parts, the lesions of which always occasioned the disturbance of the same cerebral act, it would not, in our opinion, be fair to object to the doctrine of localization, that there are also other cases where this same functional disturbance is reproduced, though the lesion might be elsewhere.

"Among the thirty-six cases constituting the subject of our analysis, only in three was any thing particular noticed with respect to the genital apparatus. In one of these cases permanent erection of the penis was observed during the whole time the patient was attended. There was, in this case, compression made at one and the same time by a tuberculous mass, both on the right lobe of the cerebellum, and on the medulla oblongata. In the second case, the patient indulged in masturbation; several tubercles were found in the upper part of the cerebellum; whether on both sides, or on one only, we are not told. Lastly, in the third case, regarding an individual said to be very prone to venereal desires, a tubercular mass occupied all the substance of the middle lobe."

After the extracts we have given from this first part, and after they have been carefully perused, we augur an extensive sale of Andral's Clinique Medicale in the English version. It is a glorious evincement of what a powerful mind can achieve when imbued with all the elements of science and learning of the period.

EFFECTS OF TEA.

In the eighteen hundred cellars of Liverpool there are many in which animal food is not tasted more than once a week; but there are very few in which tea is not drunk daily: it is often, indeed, drunk twice a-day. The money spent in tea is worse than wasted; it is not only diverted to an article that affords no nutrition, but to one that debilitates the empty stomach, and incapacitates for labor. Hence the vast number of dyspeptic complaints among our patients at the public charities, which are almost all to be traced to the use of tea, or spirits, often, indeed, assisted by depression of mind. At the Infirmary and Dispensary together, this class of patients exceeds five hundred annually; the great majority are females.—*Dr. Currie.*

TEA AND COFFEE.

The man who ventures to condemn the use of tea and coffee would appear very bold in the eyes of English ladies; while he who praises it would appears equally bold in those of most continental dames. Yet certain it is that the drinking of over quantities of this fluid is one of the most frequent and powerful causes of indigestion amongst the females of England. Every man acquainted with the hospital or dispensary practice of a city or large town, cannot fail to have remarked the frequency of the cause of

indigestion, particularly amongst female servants and poor room-keepers. If they consent to abandon the habit, they are speedily cured. If not, their stomach and nervous complaints persist ad infinitum.—*Dr. Higgins on Climate, Diet, &c. in France and England.*

CURIOUS CASE IN WHICH AN EAR OF RYE PASSED FROM THE STOMACH OR INTESTINE TO THE SKIN.

By Dr. Acassat.

A little girl, about three months old, whose parents reside at Montmartre, about a month since, without any appreciable cause, suffered from gastro-intestinal irritation, which in the course of a week terminated by causing an enlargement in the region of the liver; a little matter formed here, and the abcess broke spontaneously, when part of a straw could be seen. The mother of the child, rather surprised at this occurrence, drew it out to the length of an inch, but as it resisted her efforts she gave up her attempt, fearful of its breaking; her husband finally succeeded in extracting an ear of rye, similar to those of which the bed was made. Purulent and fecal matter followed its extraction. The opening closed in forty-eight hours, and then the child was apparently doing well for a week, when it became lienteric, and it continues so at the date of report, three weeks after the rye was passed. There is every reason to believe that a communication has been formed between the stomach and transverse arch of the colon.—*Bulletin Generale de Therapeutique.*

A FEW PRACTICAL OBSERVATIONS ON THE ART OF CUPPING.

By Joseph Staples Cupper to St. George's Hospital, &c.

We are convinced, and so are the majority of our readers, that dexterity in performing the minor operations in Surgery is of as much importance in enhancing the reputation of a practitioner, as if he could tie the subclavian or the internal illiac with facility. This position has been placed in so clear a light by surgical writers—need we only name Alcock?—that it is quite unnecessary for us to repeat them. If a young practitioner be called to a patient for whom the operation of "Cucurbitulum cum ferro" be required, and he has frequently performed this operation, he dexteriously avoids the trickling of blood down the back, draws a sufficient and proper quantity of blood in a moderate period of time, and neither breaks the glasses, scorches the patient's skin with the torch, nor destroys it with the heated rim of the glass, and avoids a variety of other such errors, which a tyro is liable to commit, he will undoubtedly acquire the esteem of his patient. If, on the contrary, he commit all those blunders—nay, even one of them—discomfiture in the patient, and perturbation may probably appear. "First impressions often continue;" this is an old adage—seldom, however, is it adduced in reference to this subject. Better if it were! The humble author of this (what shall we call it?) book dedicates it to the physicians and surgeons of St. George's Hospital, &c. In the preface he observes, that he "was induced to throw together the following observations, by having witnessed gentlemen of excellent education, and competent to perform the most important operations, making the strangest mistakes when they attempted to abstract blood by the cupping glass." This is a modest observation. Let it pass. We find nothing certainly in the book that is new. The manner in which cupping is to be performed on various parts of the body, is very concisely described; but such a book is not required: it would occupy about, certainly not more, than four pages of our journal. Vide the price!

After the works we have on the subject by Mappleson, *and particularly by Knox,*

"Art of cupping, &c." a very valuable little book, we do not think the author was justified in imposing this, as he has done, on the list of subscribers he has presented to us in the appendix.

REVIEW OF AN HISTORICAL ESSAY ON DUPUYTREN.

By M. Vidal.

The death of Dupuytren operated somewhat like a political event. For three days the columns of all the principal journals, both of England and France, were filled with details concerning the character, life and death, of this celebrated man, and of the scientific cortege which accompanied his mortals remain to the tomb. By degrees, however, this clamor subsided; his ashes were suffered to repose in silence, and, like all other transitory events, the death of Dupuytren was altogether forgotten. We have, indeed, the hope of two or three funeral orations, a tribute due from every Academy; but funeral orations, from their very nature, are too laudatory to be trusted to—they ever voluntary hide every truth that may appear disparaging to their subject. But M. Vidal, in one simple notice, with the unpretending title of "Essay," has exhibited Dupuytren in his character as a man and as surgeon with admirable spirit, and with just and enlightened criticism.

It is well known that Dupuytren was brought to Paris, when yet very young, by a cavalry officer, who read, it seems, in his countenance a part at least of his future destiny. Previously to this event he had already, at the age of three years, attracted the notice of some rich traveller, and been taken from his family, but his father re-claimed him, and he was restored with regret.

At Paris, Dupuytren's abilities soon became known to men capable of appreciating them. The philosopher Saint Simon, the same who has been made a god for want of a better, mounted the student's garret one day; the weather was exceedingly cold, and Dupuytren was studying in his bed. The philosopher seated himself on *un poel glas*, and, having chatted a little, rose and departed, leaving 200 franc on the *poel*. Dupuytren found the money, ran after Saint Simon, and presenting it said, "Here sir, is what you left behind you." "True," answered Saint Simon, and took the money.

M. Vidal follows Dupuytren in his rapid career; exhibits him in the Hotel Dieu, severe with the students, peremptory even to rudeness with the patients, amiable and gentle towards little children. He then endeavors to analyse the genius of the surgeon, whether when in a case of difficulty his peculiar diagnostic power was especially called forth, or when in the amphitheatre surrounded by an audience listening as to the words of an oracle. In all these appreciations M. Vidal shows great judgment and ability; but we cannot agree with him when he denies to Dupuytren the spirit of innovation, "if by that we are to understand the doing what Pare, Franco, J. Hunter, Pott, and J. L. Petit have done." This sentence is severe, coming from one whom we cannot tax with injustice towards Dupuytren. The question is nevertheless of easy solution. Let the discoveries, or what are so called, with which each of those celebrated surgeons have enriched science, be compared with those of Dupuytren, and we venture to affirm that he need not shrink from the comparison. But our limits do not allow us to enter further on the matter; the first point of the question is—what is meant by *discoveries*.

Dupuytren's surgical works are:

1st. Un Mémoire sur les Anus contre Nature.

2nd. Un Mémoire sur les Ligatures des Artères, substituées à l' Amputation dans les *Cas de* Fractures compliquées d' Anéurismes.

3rd. Un Mémoire sur la Ligature des Principaux Troncs Artériels.

4th. Un Mémoire sur la Fracture du Péroné, et sur les Accidens qui en sont la Conséquénce.

5th. Un Mémoire sur les Luxations Congenitales du Fémur.

We might add to this list many other works—a Memoir on Luxations of the Vertebræ, &c.; but we know that Dupuytren's most esteemed labors were taken and published from his lectures delivered in the theatre of the Hotel Dieu, by his own dressers, and afterwards again corrected by himself; of the value of which we cannot speak in too high terms; many of them we have laid already before our readers; and we shall not consider that we have done the name of this great man justice, until be have completed the whole of them in our pages.

CASE OF RUPTURE OF THE HEART.

To the editor of THE LANCET.

SIR,—I was lately called upon by a magistrate in this neighbourhood to examine the body of a man named Lehane, who died suddenly in the parish of Ballyvourney in this county, and whose death was reported to the police as having occurred under suspicious circumstances. It was stated that the deceased had received a blow from the handle of a spade across the loins, from a fellow laborer in the field where he was at work, a short time previous to his death.

Lehane had been buried in the church-yard of Ballyvourney when the report reached the magistrate. I accordingly went to Ballyvourney, accompanied by a magistrate and some police, and we had the body, disinterred fifty hours after death.

On examining externally, I could find no mark of violence. I then proceeded to open the different cavities. The whole of the contents of the abdomen appeared to be quite healthy, but rather exsanguineous; even the large veins contained but little blood. On opening the cavity of the thorax, by raising the sternum with the cartilages of the ribs attached to it, I observed the pericardium to be enormously distended. The upper or anterior surface of both lungs appeared to be quite healthy, but of a very dark ash color.

The pericardium, when cut in to, contained in its cavity about four pounds of coagulated blood, and the heart lay at its upper and posterior part, very little enlarged in size. I found a small aperture opening into the left ventricle, about two lines in diameter, and with rugged edges, through which the blood had escaped from the heart into the pericardium. This ruptured orifice was situated, about three quarters of an inch below the junction of the heart with the aorta, and on the anterior and towards the lateral surface of the heart. I slit up the left ventricle from its apex until I arrived at the commencement of the aorta, where I found the semilunar valves so thickened and altered in their structure as almost completely to block up the ventriculoaortic passage, so that only a column of blood of the size of a pea could pass into the great artery.

The cavity of the left ventricle was enlarged, but its parietes were not thickened; on the contrary, at the part where the rupture took place, the wall of the ventricle had become so attenuated as to give way, when the unfortunate man made some strong bodily exertion. The mitral valves were not in the slightest degree diseased, and the right ventricle, with its valvular apparatus, was perfectly normal in structure.

The posterior part of the left lung was much engorged with blood, the right lung not so. Both lungs were emphysematous, but not to any considerable degree. The deposition of the dark carbonaceous matter in the substance of the lungs was very great, the patient being only thirty-eight years old. On opening the bronchial tubes I found traces of considerable congestive disease of those vessels, but more, particularly in the larger ones.

The mucous surface of these organs presented in many places a deep-red color, and in other places approaching to a rusty brown, and they were coated with a bloody, frothy, muco-purulent matter.

The cavity of the cranium presented only three appearances. The brain and its membranes were perfectly free from disease, but seemed rather deficient in the quantity of blood. The large sinus contained some blood, but the smaller veins scarcely any. The substance of the brain was firmer than usual, and about one ounce of serum was found in the ventricles.

There could be but one opinion as to the cause of the man's death, and I reported to the magistrate that he had died from natural causes, and the story of his being struck with a spade-handle proved to be a fiction of a malicious neighbor.

I obtained but a very imperfect history of this case from the relations of the deceased, who were extremely ignorant and stupid people. They said that Lehane had been ailing for the last ten years, and that when he first became ill he complained of great pains all over his body; afterwards he experienced severe palpitations, and violent pain in his chest, left side, and arm, and could not sleep unless his head was quite on a level with the rest of his body. He had frequent fits of giddiness, and used to fall down "in a dead faint." He had had some medical treatment, but as the gentleman under whose care he had been had left this neighbourhood, I could not learn anything about it except that he was bled and blistered. On the day that he died he was attempting to plough, having found himself better than he had been for a long time previously; but in turning the plough, when it came to the end of a ridge, the exertion was too great, and he fell down in the field and expired in about ten minutes after, his friends not having time to take him home alive. I regret much that I could not get a better history of this case, but the dissection I consider interesting.

I am, sir, your obedient, servant, J. L. M'CARTHY, M.D.

Macroom, Co. Cork, May 19, 1835.

FOREIGN MEDICAL LITERATURE.

Review of the German Journals.

Frequent variations may be observed in the health and habits of insane persons, which appear to be intimately connected with the frequent variations in the state of the atmosphere. The study of general causes is therefore very important with reference to the treatment of those affected with mental alienation; nor is it less interesting to compare the action which these general causes have at the same time on the insane, and on persons in the full enjoyment of all their faculties. Such is the object which M. Bird proposes to himself in the memoir which we are about to analyse.

His observations for the year 1831 are too brief and too scanty in detail to afford much interest; however, he remaks that the medical establishment of the House of Health did not always coincide with that of the town, and that in general the cleanly state of the hospital was more satisfying than that of Siegburg itself; but, he adds, it must not be forgotten that their exposition differs, that the establishment of the insane is situated on an elevation of two hundred and thirty feet, and the town at the foot of a hill in a humid atmosphere. For 1833, his observations extend only to July, but embrace a great number of facts worth notice. At this period the medical institution decided to act very nearly the same with respect to the insane as the other individuals. During the first six months the maladies were rheumatic and catarrhal, both of the insane and sound in mind, these latter having, however, a greater tendency to gastric and inflammatory complications, and a greater number of intermittent fevers. In the beginning of July the

catarrhal and rheumatic affections disappeared, but many of the insane were subject to a relapse.

In the town, headachs became also more frequent, and it is by no means rare to see cerebral affections, often mortal, associated with intermittent fevers. But it would be endless to follow the author in the enumeration of all the facts which he observed day by day; general reflections supported by observations will suffice.

M. Bird divided the insane into two classes,—those whose brain is primitively affected under the influence of the direct exaltation of the arterial system, the maniacs. Those with whom the brain is affected but secondarily, the first pressure being on the digestive organs, venous system, thence to the arterial system and encephalous organs, the hypochondriac and melancholic.

Cold has a remarkable influence on the insane; thus during January, when the temperature was low, the weather cloudy, or when it snowed, they were all greatly agitated, but became calm as the weather became temperate. But this agitation is much increased and of longer duration in the heat of summer, tendency in the atmosphere to lightning, and, in short, under all sudden and violent changes of temperature they are ever restless and unquiet, yet M. Bird has never remarked the influence of the moon on his patients.

At the approach of spring, all nature seems to receive new life and excitation; to the insane it brings corresponding feelings; the melancholy will at first experience a certain degree of uneasiness and a passing aggravation of their state.

A young man of seventeen, who became insane at the age of puberty, and another of twenty-two, were so bad in the first five days of February, that they ate their fæces and drank their urine as a penance, one of them said, for his sins, at the same time his heart beat violently, the carotids were fuller and more stretched, while, with the exception of his head, which was hotter, his temperature did not appear to have increased.

Nevertheless, as spring advances, in the months of April and May, to their previous state of trouble and agitation succeed a state of calmness and even lucid intervals. Thus a female, continually agitated by fear and anguish, became calm, and resigned herself peaceably to work; another patient, preoccupied with sombre ideas, and whose state manifested a disposition to serenity and even some gaiety, although his melancholy has in a degree diminished, still he has again become hypochondriacal.

The state of trouble and uneasiness which appears in the first days of spring with the melancholy, is Nature's salutary effort to cure the malady; if, then, it is suitably seconded by art, a favorable result may be expected, but both fail generally; and if sometimes transient success is obtained, a relapse is to be feared in the autumn.

It is also under the influence of spring that Dr. Bird has noticed the critical secretions and evacuations, at the termination of which the state of the patient seems ameliorated, at least for some time. An idiot, forty years old, was subject to fits, during which he remained as if paralysed, appeared to have partly recovered his intelligence during March, after an abundant secretion of nasal mucus mixed with blood. Others have found relief after hæmorrhoidal fluxions, the menses long, suppressed, sweats; copious expectoration after catarrh has frequently procured salutary effect.

Favorable as the spring is in some respects to the melancholic, it is less so to the raving and those affected with hallucinations of the senses; the arterial exhaltation, the immediate cause of cerebral affections, is then found to augment, delirium is then frequent with many of them, and tendency to congestion of the brain. The best season for maniacs is autumn, and the only time favorable to their cure; the contrary is the case with respect to the melancholic. Nevertheless M. Bird observes that in 1833 the arterial

exaltation, cerebral congestion, and the paroxysms of raving, were less frequent and violent, which he attributes to the forbearance of all coercion, the gradual approach of spring, and in many of them to the return of long suppressed secretions and evacuations. The bath is considered by M. Bird as baneful during the cold season, but beneficial during summer.

ON THE EMPLOYMENT OF EXTRACT OF PULVERISED BLUE ACONITUM IN RHEUMATIC AFFECTIONS.

By Dr. Gintrac.

The use of blue aconitum has long been recommended in rheumatic and arthritic affections. Murray, in reporting the testimony of several physicians in favor of this medicament, adds his own personal experience of its beneficial effects. Yet the employment of blue aconitum was very limited, owing, doubtless, to the exaggerated praise too often bestowed on remedies which proved, in the end, of no avail, or perhaps to the natural fear of administering a plant reputed poisonous.

I myself was possessed with much doubt and fear on the matter, when I met with the Essays of M. Lombard, Physician to the Civil and Military Hospital at Geneva, on the Efficacy of the Extract of Pulverised Blue Aconitum in Acute Articular Rheumatism. The facts published by that gentleman appeared to me conclusive; they inspired me with confidence, and I resolved to verify them myself. Accordingly I engaged M. Loze to prepare for me a few drachms of the extract used by M. Lombard, which differs from the common, often found by that gentleman inert. It is thus prepared:—The juice of the plant, expressed and submitted to a gentle heat to coagulate the albumen, is evaporated in an alembic, dissolved again in alcohol, filtrated, and again evaporated in a low temperature. Some juice of the plant from the Pyrenees, mixed with a little mucilage to prevent irritation completed the prescribed operation.

The first patient on whom I made trial of the extract was a young man, 24 years of age, who for three years had been subject to rheumatic attacks, and was then suffering most acutely in almost all his joints. The suffering parts were slightly tumefied, heated, and painful; there was complete vigilance. Neither general nor local bleeding gave much relief; twelve grains of prepared antimony in twelve ounces of water, administered by spoonfuls every two hours, caused at first a slight inclination to vomit. This subsided, and some degree of relief was manifested, of short duration however, and I would not repeat the dose. It was now that I tried the extract; but, not aware of its degree of activity I gave at first but one grain divided into four pills; no effect; no excitation of the digestive organs—none on the nervous system; then pills of one grain each, gradually, and finally to the amount of eight pills per diem. The effect was complete; in the course of a few days every painful symptom disappeared, his recovery was perfect, and has so continued.

Miss * * *, about 22 years of age, had, in the winter of 1833, an obstinate rheumatic swelling in the right knee, which continued for two months, appeared in the following winter, and again during the last summer, with increased intensity. Bleeding, leeches, cataplasms, emollients, and vapor-baths, various liniments, blisters, revulsions on the digestive tube, sudorifics, and other means, were all employed, and to little purpose; the malady appeared to diminish, tired out as it were. In the autumn she could walk, or rather hobble along; the knee still swelled, leg and foot also, with great stiffness of the joints, and pain throughout the member. In vain were repose, the horizontal position, emollients, and a compressive bandage, tried; they, indeed, reduced the swelling a little but increased the pain. It was at this period that I tried the extract; the result was

prompt, successful, and unexpected. In the course of three days the pain and swelling subsided, the knee returned to its normal state, and she now walks with as much ease as she ever did. No indication of excitation in the digestive organs during the operation of the extract—none in the nervous system.

On a third individual I did not obtain so satisfactory a result. M. M——, 38 years of age, of a sanguine and nervous temperament, was attacked with acute rheumatism in all the articulations of the upper members, back of the head and neck, and thence proceeding to the lower members, accompanied by continued fever. After three bleedings, several applications of leeches, and the trial of antimony, acetate of ammonia, blisters, &c., the extract was administered; at first with some advantage, then with none whatever, yet ten grains every four and twenty hours had by degrees been tried. No narcotic or even calming effects resulted; on the contrary, watchfulness with nervous agitation; this latter symptom must be attributed less to the extract than to the great irritability of the patient.—*London Med. and Surgical Journal.*

SALIVATION FROM MOISTENING RED WAFERS, &c.

To the Editor of THE LANCET.

Sir,—As the two following cases may be deemed of sufficient interest for publication, I forward them for insertion in your valuable Journal.

Your obedient servant, HENRY BIRD.

15, Southampton-terrace, Kentish-town, March 30, 1835.

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J. R. T——, aged 35 years, hon. secretary to a new society consisting of nearly 900 members and subscribers, was attacked with soreness and swelling of his gums, which he attributed to cold; he had a pediluvium and retired early to rest, taking a dose of James's powder, to promote perspiration. Finding in the morning augmentation of his symptoms, he requested my attendance.

I found his tongue swollen, and ulcerated on its borders; the teeth were loose, and aching, and there was pain in the head, the gums were ulcerated and receding from the teeth, and there was strong mercurial odour in his breath, with all the other usual symptoms of severe salivation. Having, on a previous occasion, seen him affected in like manner after he had taken a four-grain calomel pill and a common cathartic draught I was induced to imagine that he had taken one on this occasion. He assured me, however to the contrary, and I remained in ignorance of the cause. I prescribed for him:—℞ *Sulphur. Loti* ʒj, ter die sumend. ℞ *Solut. Chlor. Sodæ* ʒij; *Spt. Gall.* ʒi; *Aq. Distill.* ʒv. M. ft. lotio, freq. utend.

Under this plan he daily improved, and at the end of a week was quite restored, but on the 9th day I was again sent for, when, to my utter astonishment, I found him again affected, but with increased violence, his tongue protruding, and saliva constantly flowing from his mouth. I at once requested him to state how he had passed, and what he had taken, the last two days, when I found that two days prior to the first attack he had wafered nearly 900 circular letters with red wafers, all of which he moistened in his mouth, and that having to send the same number of circulars this time, he had wafered those in the same manner, with a similar result. The same treatment was again adopted and a speedy recovery ensued, with a recommendation to him in future to moisten the wafers in water.

The manner in which ptyalism was produced in this case is curious, and it shows also how remarkably the iodiosyncrasies of constitution modify the actions of medicinal agents.

J. B., a midshipman in the Indian navy, aged 21, had been attacked, while on duty up the Red Sea, with yellow fever, three separate times, for which he had been profusely salivated, and was at last sent home with a sick certificate, as affording him the only chance of recovery. He was confined to his cot during three months of the voyage, and was only able to walk on deck with assistance. On his arrival in England he placed himself under my care, and stated that at each separate time of salivation his tongue hung out of his mouth, and was so much swollen that he could not close the jaw, but was obliged to take nourishment from the spout of a teapot.

The mercurial odour arising from him was so offensive as to render it disagreeable to approach him. There were exfoliation of the superior maxillary bone, and constant toothach, increased when his mouth was open; his teeth were so loose that they might have been almost shaken out of his head; the gums were ulcerated, and had receded from the teeth; a fetid discharge came from both nostrils; hemorrhage. ℞ *Decoc. Sarsap. Co.* 0j; *Acid. Nit. Dil.* ʒiij. M. Tertiam partem ter die sumend. ℞ *Solut. Chlorid. Sodæ* ʒij: *Spt. Gall.* ʒj, *Aq. Puræ* ʒv. M. Ft. lotio freq. utend.

Strong nitric acid applied daily to the bone; generous diet. His general health rapidly improved, and at the end of two months he considered himself to be as well as before his first departure, with the exception of the looseness of his teeth, for which I recommended ℞ *Aluminis* ʒss; *Tinct. Cinchon., Tinct. Rhatan.*, a. a. ʒj; *Aq. Puræ* ʒvi. M. Ft. lotio frequent. utend.

From this he found great benefit, and at the end of six months he was able to eat solid food of any description.

Some months afterwards, having occasion for an aperient I prescribed a four-grain calomel pill, and a cathartic draught, and the following day he was affected with ptyalism, which was treated in the same manner. Was this produced so rapidly in consequence of his frequent previous salivations; or was it the result of a peculiarity of constitution, as in the first case? I have noticed these two cases, not on account of the treatment adopted, but to add to the examples in which trifling quantities of calomel will in some persons produce ptyalism, while in cholera I have seen above 1000 grains given without that effect taking place. At the same time I may be allowed to remark, that the plan of treatment above given, in conjunction with exposure to atmospheric air, as recommended by Dr. A. T. Thomson, is, in my humble opinion, decidedly the best at present adopted.

EPILEPSY FROM VENERY.

To the Editor of THE LANCET.

Sir,—As a constant reader of your valuable journal I cannot avoid making an observation upon a subject adverted to in a late lecture by Dr. Thomson of the London University. In speaking of the causes of epilepsy, I am surprised to find no allusions made by him to indulgence in venery, in my humble opinion, the most fruitful source of this often intractable malady. Out of seven cases which have lately come under my care, six were decidedly owing to veneral excitement. I will allude to two of them only.

A gentleman, aged 41, having fallen down in a fit, was brought into my house for assistance. The manner of his wife, who was with him, not being so kind as would be expected under the circumstances, I expressed, my surprise, when she informed me that it was "his own fault," and related sufficient to satisfy me as to the cause of the epilepsy. This gentleman's health was completely re-established by a voyage to America, leaving his wife in England.

The second case, I shall notice was one of a rather different character. The patient, aged 25 years, had for eighteen months been desponding and low-spirited, manifesting a peculiar aversion towards every person who wished to alleviate his sufferings, especially his mother, sisters, &c. Twice or three times a week, or oftener, he was attacked with a fit, which continued from ten minutes to half an hour, or more, and left the mind wandering for some time after. The appetite was voracious, and the pulse quick and hard, with an unusual degree of heat and pain about the head, chiefly referred to the occiput. Having made strict inquiries as to his habits, his friends informed me that he was remarkably sober and steady; but not being satisfied with this report, I expressed my suspicion to a brother who slept in the same room with him, and wished that he should be narrowly watched. The result was as I had anticipated. He was detected, and confessed that he had for a long time past indulged, in a habit which is destructive of both mental and bodily health. That this was the cause of his illness and epilepsy does not admit of a doubt, since the only mode of treatment that was adopted was counter-irritation to the part affected. A diet consisting principally of fish and farinaceous food, with constant employment in business from morning till night, where he was always under the eye of an active manager, had before the expiration of six weeks thoroughly established his health, which from that period until now has not been interrupted.

I trust that these remarks will tend to direct attention to a more correct view both of the pathology of epilepsy and its treatment.

I am, sir, your obedient servant, FRANCIS EAGLE.

29, Poultry, March 25, 1835.

DENTITION IN OLD AGE.

The records of medicine contain several examples of persons cutting teeth at a very late period of life. Thus Hildebrand (*Anatomica*) mentions the case of Maria Hord, who cut twelve new back teeth at the age of 97; and Hufeland records the still more remarkable case of an old man of 116 who cut eight new teeth at that period of his life. The following case, reported by a physician at Berlin, deserves also to be recorded:—A lady, 54 years of age who had lost the four lower incisors, had them replaced by as many artificial teeth, in one piece; after a lapse of five months, to her great astonishment, she remarked that the artificial teeth began to ascend, and in a short space of time visibly passed the level of the rest of the range. As the deformity became very evident, and the motions of the jaw were impeded, M. Kneisel was called in, and discovered the cause in the formation of two new middle incisors; in a short time the two external incisors of the lower law made their appearance, and after a lapse of two years she cut the right large incisor of the upper jaw.—*Berlin Gazette, No. 5.*

OBLITERATION OF THE VENTRAL AORTA.

At the last meeting of the Society of Medical Observations, Paris, M. Louis presented a case of complete obliteration of the ventral aorta. The patient died at the Hospital de la Pitie, of pulmonary disease; and no great change could be observed in the temperature or external appearance of the lower extremities, although minute examination did not show any collateral branches of note by which the circulation could have been continued to the popliteal arteries. The femoral was obliterated during the greater parts of its course.—*Lancet.*

From the Lancet.

ABNORMAL SECRETION OF MILK FROM THE SCROTUM.

The following very extraordinary case is contained in the inaugural thesis of M. F. Koller, the first thesis presented to the University of Zurich. There is perhaps nothing similar to it to be found in the annals of the science, if we except a case somewhat analogous, cited in Hufeland's Journal, Vol. 54, No. 2. The milky nature of the fluid secreted was put out of all doubt by microscopic observation and chemical analysis. It was found to contain all the characters of milk, and its production was evidently connected in some way or another with exanthema and ulcer of the righ lower extremity. The nature of the stools and urine was natural throughout the whole period during which the patient was under observation. The case is taken from the Gazette Medical de Paris of Saturday last, July 4 :—

H. V., 21 years of age, had enjoyed good health up to the age of 15, when he began to complain of some feverish symptoms. A few days afterwards the left lower extremity presented an eruption of small, slightly-elevated red spots, occasioning burning heat and pain in the skin ; these symptoms soon disappeared, but the foot began to swell, and the lower extremity became tumefied and soon acquired double its natural volume. The general health of the patient was now in no way influenced by the disease. The tumefaction emptied itself from time to time by two small orifices below Poupart's ligament, giving exit to a white transparent viscid fluid, in greater or less quantity. As the tumor diminished the exanthema reappeared. The patient passed three years in this state, which was not altered by the various remedies employed. At this period the genital organs, always little developed and extremely small began to develop themselves in a sudden and extraordinary manner : the scrotum especially became very large : the external surface of this part was soon covered with a number of small vesicles, which opened, and discharged a great quantity of a milky fluid : when the scrotum was compressed, a quantity of the same fluid issued through the two small pores we have noticed, below Poupart's ligament, on the inner side of the thigh. This secretion, though generally of a nature completely milky, sometimes presented an aspect slightly serous. The tumor continued to enlarge, although the secretion was not constant, periodically, every three or four weeks. There were now pains in the groin and loins, darting to the scrotum, and when the patient assumed the upright posture, about two or three pounds of the milky fluid came away. Since the commencement of the disease in the scrotum, the ulcer of the leg had closed, and the tumefaction of the extremity much diminished. On the 23rd of August 1833, the patient was admitted into the hospital at Zurich. The scrotum was now tumefied, and to the touch gave the sensation of a female breast ; the skin of the penis was tumefied ; the color of the parts was more deep than natural ; the corpora cavernosa were small, and retracted towards the pubis ; the testicles also were very small, and drawn up to the rings ; the larynx was little prominent, but the voice was not feminine ; the beard and the hairs on the pubes were delicate and few ; the right extremity was a little larger than the left.

During the patient's stay at the hospital, the secretion of milk took place several times. Thus, about the 26th of August, the usual precursory symptoms appeared, and more than three pounds of milk were discharged. On the 30th there was a new access of fever, and an appearance of the exanthema on the right thigh. On the 11th of September a fresh discharge of about half a pint of fluid took place, not presenting the same white color or consistence as the former, and giving out a little the odor of semen. During the months

of September and October, the tumor of the scrotum and the secretion of a milky fluid alternated frequently with the exanthema on the thigh; however, the tumefaction of the skin covering the genital organs, diminished remarkably, as well as the quantity of fluid discharged, which became more serous and troubled in its appearance, and finally disappeared.

SOME OF THE CONTRIBUTIONS TO MEDICAL SCIENCE BY THE LATE BARON DUPUYTREN.

The labors and researches of M. Dupuytren were principally employed about anatomy (natural and morbid), and surgery. But as our space is limited, we shall confine ourselves to a rapid view of his surgical achievements. He seems to have enriched the art of surgery in every department. In the treatment of phlegmonous erysipelas, he is said to have been the first who applied blisters; and it was he who explained the nature of inflammations with strangulated bases, as in furunculus and anthrax,—where he devised the plan of large and deep incisions, in order to arrest their progress. Burns he divided into six species or degrees, and assigned an appropriate treatment for each. He it was who first tried caustic in sores affected with hospital gangrene; who employed epispastics for the radical cure of hydrocele; who modified successfully Foubert's method of treating fistula lachrymalis; who struck out a new process for the cure of ranula (*grenouillette*); and it was he who originated certain important precepts for the forcible and successful removal of sarcomatous polypi of the nose and maxillary sinus. From him we learned the advantages of excision in preference to ligature, in treating uterine polypi; and he it was who first performed the operation of complete amputation of the neck of the uterus, when affected with scirrhus, or cancer. He it was who first recommended the semicircular incision in removing carcinomatous upper lip, leaving it to nature to supply the deformity in her own best fashion. Who was more clever than he in diverting the patient's attention during the attempt to reduce luxations? For cataract, his experiments for ascertaining the comparative merits of extraction, keratonyxis, and depression, are all well known; and how he preferred the latter, and invented a needle for the purpose, in many respects superior to that of Scarpa.

There are also numerous other operations for which the medical world is indebted to the genius of Dupuytren—such as amputation of the lower jaw, and new process for removing limbs at their articulations—at the elbow, for example, the hip-joint, and the knee. Among his improvements we may notice the rejection of the ligature of reserve (*d'attente*) in the treatment of aneurism; and among his inventions, the instrument which he substituted for the tourniquet of petit, and that which he contrived for cutting the intestine without danger (the Enterotome) in artificial anus. To him we also stand indebted for the rules he has laid down for the treatment of prolapsed rectum by incision; for his practical suggestions on the nature of calus; and for the inclined plane which he devised for the management of old fractures. His ingenious method of bandaging in fractures of the fibula and radius are well known. For the treatment of recto-vesical and recto-vaginal fistulæ by the actual cautery, he has been celebrated; he has removed with success a portion of the sternum and contiguous cartilages affected with caries; and who has not heard of his bold and successful cure of wryneck by division of the sterno-cleido-mastoid muscle,—a plan which has since been followed by M. Amusat with complete success? Nor should we omit to add to this hasty list his admirable investigations, in conjunction with M. Therard, relative to the asphyxia produced by sulphuretted hydrogen and nitrogen gases.*

* We do not pledge ourselves for the completeness nor the correctness of this list of M. Dupuytren's contributions to medicine and surgery; we have merely copied it from an article, by M. Lazaras, in a recent number of the Gazette des Hopitaux.—Ed Gaz.

In short, it may be said, that perhaps there has never been any one man from whom the practice of surgery has derived so many and so great benefits.

His fame as a pathologist is only obscured by his superior lustre as a surgeon: yet it should not be forgotten that he was one of the founders of pathological science in France. It is true that Bayle, and Laennec, and Broussais, and Andral, have opened mines of wealth in this department; but Dupuytren was among the first, if not the first, to give an impulse to their labors.—*London. Medical and Surgical Journal.*

Dysentery—Administration of Narcotic Lavement—Perforation of the Rectum—Death—Numerous Abscesses in the Excavation of the Pelvis.

We have assisted at the opening of the body of a man in the prime of life, who entered the hospital for a dysenteric affection. The rectum had been perforated about an inch above its anal extremity by the canula of the syringe used in administering a lavement. The consequence of this perforation was a purulent infiltration of the celular tissue of the pelvis; in some points the pus was collected. A fact analogous to this had already been observed by M. Chomel at La Charite.

SPEAKING MACHINES.

We intend to occupy a couple of pages in our two or three following numbers with a brief account of the attempts that have been made to imitate the mechanism of the larynx and the sounds of the human voice; in other words, with a short history of speaking machines.

The subject, we believe, is new to many; and this circumstance, added to its important physiological bearings, the wide field it presents for further research, and the encouragement which the progress already made holds out to future experimentalists, has determined us to lay this condensed report before our readers.

We may as well, indeed, take this opportunity of stating, that it is our intention from time to time to give similar abstracts of the progress of modern science, convinced that by such a plan we shall essentially benefit the medical student, as well as that numerous class of our readers, whose attention is so wholly engrosed by professional duties as to leave them little opportunity of following up for themselves the discoveries and improvements of our own times.

In accordance with this design, we shall always be happy to take into consideration the requests or suggestions of correspondents, with regard to the particular branches of science on which such reports as the present appear to them to be especially required.

Speaking machines, *properly* so called, are instruments which by purely mechanical means emit sounds like those of the human voice. The speaking statutes and heads of Egypt, Greece, and Rome, which delivered in old times dubious responses to those who consulted the oracles of the gods, were merely contrivances by which the voice of a priest was clandestinely conveyed to the statue's lips; and the speaking images of the middle ages, which excited the alarm of the superstitious and the admiration even of the learned, were in general constructed on the same principles, more or less skilfully disguised and concealed. None of these, therefore, come strictly under the designation of speaking machines. But inasmuch as truth has ever had its beginnings in error, and science emerged from superstition, as the sun breaks forth from the eastern clouds, it will be interesting, and not wholly uninstructive, to take a brief view of these early deceptions.

The famous Temple of Jupiter, near Dodona, in Thessaly, maintained the most ancient of the oracles of Greece. Around the hill Tmarus, on which the temple stood, there

was a grove of sacred oaks, from which mysterious voices came forth, revealing the future to votaries who had laid their offerings on the shrine of Jove. This was effected by the artful concealment of priests within the hollow trunks or amid the foliage of the trees; though many ancient authors would have us believe that a beam from this grove, placed in the bow of the ship Argo, gave oracular information to Jason and his Argonauts.

The celebrated Colossus, erected by the Egyptians, in honor of Memnon, their king, emitted a melodious note when the first light of morning fell upon its lips, and uttered a melancholy sound when the last sunbeams faded in the west; and many of the inscriptions, which the credulous visiters used to engrave upon the statutes, prove that its apparent vocal powers were far more extensive than this; the sudden breaking of a harp string, the clang of sounding brass*, a wild strain, like that of the Eolian harp, and even verbal salutations, have been successively ascribed to the statute by different authors.

Mr. Wilkinson has lately found a sonorous stone in the lap of the statue, with a recess cut in the block behind, wherein a person may lie concealed from the most scrutinous observer in the plain below. He posted some peasants at the foot, and ascended himself into the lap of the statue. Having struck the stone with a small hammer, he inquired what they heard; they answered, "Ente betídrob enatrás" (you are striking brass). Their expression coincides remarkably with the inscription mentioned in the note, and Mr. Willkinson concludes this to have been the sound which deceived the Romans, and led Strabo to observe that it appeared to him as the effect of a slight blow.

The difficulty of reconciling these contending statements is easily removed by supposing that the priests varied the performances of the statue, to keep alive that curiosity by which they had their wealth; and artfully proportioned the miracles of the day to the credulity and the wealth of the votaries present.

With regard to the articulation of words, with which we are now principally concerned, it was in all probability effected by an arrangement of conducting tubes, similar to those which will presently be described.

The head of Orpheus, in the island of Lesbos, which predicted the death of Cyrus, and told the Greeks that Troy could not be taken without the arrows of Hercules; the statue of Esculapius, constructed by the impostor Alexander; the hollow statues at Alexandria, broken to pieces in the fourth century by Bishop Theophilus, and the speaking instruments made in the fifth century by Cassiodorus, were all furnished with tubes by which a voice might be privately conveyed to the inquirer's ear. Alexander is said by Lucian to have used the gullets of cranes (γαργαρεων αρτηριας) through which to carry speech to the lips of his statue.

The Teraphim of the ancient Jews were household idols, introduced among them from Mesopotamia, and holding much the same rank and estimation with the Penates of Troy and Rome. That they were sometimes consulted as oracles, is proved by the history of the man Micah and the Danities, and that the answers seemed to issue from their lips is inferred from Zechariah's expression—"The *idols* have *spoken* vanity." There is every reason to believe that the same simple contrivance was employed in these images, as aided the deceptions of succeeding impostors. Such artifices, however, were not likely to escape detection during any long period of time, and it is only surprising that so many of these hazardous attempts were ventured, seeing that the risk was wholly gratuitous, the common method of employing priests, or women, instructed for the purpose, being at once more simple and more safe.

This short account of the oracular statutes of antiquity will be well concluded by the

* One of the inscriptions says, "Like brass when struck," "ως χαλκου τυπτοντος."—See Wilkinson's Travels in Egypt. London, 1835.

following extract from Clark's Travels :—"At Argos we found one of the most curious tell-tale remains yet discovered among the vestiges of pagan priest-craft ; nothing less than one of the oracular shrines of Argos, alluded to by Pausanias, laid open in the ruins of a temple. The altar remains ; a secret subterranean passage terminates behind the altar, its entrance at a considerable distance, cunningly contrived and easily concealed. We amused ourselves with mimicing the solemn farce. Surely it will never again become a question, whether the answers were given by evil spirits or by the imposture of the priests."

Oracles, in the opinion of Eusebius, were struck dumb at the coming of Christ ; but Pausanias testifies to their existence two centuries afterwards. Plutarch alledges two curious reasons for their disappearance ; first, the chragin of Apollo, who took it in dudgeon to be so continually troubled with frivolous interrogation ; and, secondly, a mortality among the genii or demons who had the immediate management of the oracles. Cicero, however, more sagaciously attributes their decline to the diminished credulity of the people, who began, he says, to suspect them for cheats.

The principle of the conveyance of sound to great distances through pipes, is very simple. Sonorous undulations in the open air travel in *every* direction, and their sound may be heard all around within a certain distance ; but when they are excited in a tube the whole impulse is concentrated in *one* direction, and acts upon *one* column of air ; the sound becomes proportionally louder, and travels proportionally farther.

The curious speculations that were entertained while the scholastic philosophy still shackled men's intellects, are well illustrated by the following proposition of Walchius for conveying the sounds of the voice within tubes.

It is possible (he says) so to contrive a trunk or hollow pipe, that it shall preserve the voice entirely, for certain hours or days, so that a man may send his words to a friend instead of his writing. There being always a certain space of intermission for the passage of the voice, betwixt its going into those cavities, and its coming out, if both ends are seasonably stopped whilst the sound is in the midst, it will continue there till it has some vent. When the friend to whom it is sent shall open it, the words shall come out distinctly, and in the same order wherein they were spoken. This conceit calls to his mind an unique specimen preserved, up to his time, among the Popish relics—"Joseph's 'hah !' or the sound which he made (as other carpenters use) in fetching of a blow, laid up within a glass, among the ancient relics."

We now come to notice the pretended speaking machines of ages less remote from our own. Though no longer employed in defrauding the superstitious, the constructors of these later instruments displayed far greater ingenuity and science than the ancient impostors had evinced ; and whereas the former were ascribed to the miraculous agency of superhuman intelligence, these latter were exhibited as the production of men distinguished from the rest of the species only by superior knowledge and skill.

Gerbert, who under the name of Sylvester II., filled the papal chair from 999 to 1003, constructed a speaking head of brass. The nature of the mechanism, and the powers of the instrument are unknown ; it was, however, sufficiently ingenious to bring on the inventor an accusation of dealing in magic and demonology—the established explanation in those days, of intellectual powers above the common comprehension.

Albertus Magnus, whose extraordinary acquirements procured him also the character of magician, was currently reported to have made a machine in the shape of a man, which was an oracle to him, and explained all the difficulties he proposed ; an exaggeration probably of the fact that he formed a head of earthenware, "with springs capable of articulate sounds." It is said that his disciple, Thomas Aquinas, was so terrified at hearing it speak that he dashed it into fragments on the ground. "There goes," said the philosopher mournfully, "the work of thirty years (periit opus triginta annorum)."

This instrument is likened by an anonymous author to the machines of Boetius, of which Cassiodorus said, "metals lowe, the birds of Diomedes trumpet in brass, the brazen serpent hisses, counterfeit swallows chatter, and such as have no proper note from brass send forth harmonious music."

The celebrated Roger Bacon, who lived in the same century, is reported to have made a similar automaton.

How far these traditions are to be relied on, and how much they have gained in the telling, it is now impossible to decide; but it is the business of an impartial historian to state that which is doubtful, as well as that which is certain—what *may* be, as well as what *is*.

Athanasius Kircher, a famous Jesuit of the 17th century, who first described (probably invented) the Æolian-harp, the speaking trumpet, and many other important accoustical instruments, asserted that he could make a statue, whose eyes, tongue, and lips should have a motion at will, which should pronounce articulate sounds, and which should seem living. He intended to have made such an one for Christina, queen of Sweden; but he relinquished his design, either for want of time or of money, or for the notorious caprice of that extraordinary woman.

During the last two centuries, speaking machines were frequently exhibited in Europe.

Thomas Irson, an Englishman, exhibited to Charles II. and his court a wooden head, which excited great surprise. To questions whispered in his ear, it made answer by the lips in several languages. But while astonishment and speculation were at the highest, a popish priest was discovered by a page in an adjoining chamber answering through a pipe.

In the last century a figure of Bacchus seated on a barrel was exhibited at Versailles.

It pronounced all the days of the week in a loud and intelligible voice, and wished the company good day. Many persons were deceived by it, because the owner of the machine allowed them to inspect the interior of the figure and the barrel, where nothing was perceived but organ-pipes, bellows and chests, wheels, cylinders, &c. But the riddle was soon read; one person more inquisitive than the rest discovered a false wind chest, within which a dwarf was concealed, who transmitted his words, by means of a tube, to the mouth of the image.

Professor Beckman describes a Turkish figure filled in like manner with complicated machinery, but the voice, in this instance, was conveyed from an adjoining room.

There are two busts in the Lowther Scientific Gallery, placed at a distance of 135 feet from each other, but connected by a tube, so that a word spoken in the ear of one is heard at the mouth of the other. They illustrate very well the principle on which all these instruments depend. These instances will convey a tolerable idea of the ancient and modern speaking machines, which professed to have fully accomplished what had not yet been made the subject of a single experiment. The prevalence, indeed, of such deceptions had excited so much suspicion, that when De Kemplen, first announced his true speaking machine, a pamphlet entitled "The Speaking, Machine and the Automaton Chess player detected and exposed," was published in London. (De Kemplen was the constructer of that well known figure, the whole merit of which, he himself has acknowledged, consists in the ingenuity of the description.)—*London Medical and Surgical Journal.*

INFLUENCE OF THE CEREBELLUM ON THE GENITALS.

In the last number of the *Gaz. Medicale* of Paris, No. 17, M. St. *Martin* writes from Turin, that Dr. *Ferrorcsi* obtained the cure of a young girl, who was afflicted with a most violent nymphomania, and two young men who suffered from an incorrigible habit of masturbation, "by the simple application of ice to the back of the head, behind the occipital protuberance." 28

CLINICAL LECTURE ON A CASE OF CATALEPSY,

Occurring in the Jervis-street Hospital, Dublin.—By Andrew Ellis, Esq.

Member of the Royal College of Surgeons in Ireland, Lecturer on the Theory and Practice of Surgery in the Peter-street School of Medicine, and Surgeon to the Jervis-street Hospital, Dublin.

Gentlemen,—Having already pointed out to you the great variety of derangements to which the functions of sensation and voluntary motion and the intellectual faculties are liable, as manifested in those diseases which are usually called nervous, such as apoplexy, epilepsy, chorea, and hysteria, I now beg to call your attention to a few observations on the subject of catalepsy and ecstasy.

In a genuine case of catalepsy the patient is suddenly deprived of conciousness and voluntary motion, the trunk and extremities retaining whatever position they happened to be placed in at the moment of the cataleptic seizure, until the termination of the fit, which varies in duration, in different cases, from a few minutes to many hours. The muscles appear to have lost their usual tone to such an extent, that one would be induced to say that they possessed neither contractility nor elasticity; they will assume any condition in which you may choose to place them, and preserve it, seemingly in opposition to the laws of gravity and convenience, as if composed of lead, wax, or some other inelastic or inanimate material. The eyelids are usually closed, but there are exceptions, in which they remain open, exposing the globes of the eyes and the pupils, which are generally fixed. The functions of respiration and circulation are sometimes carried on with so much obscurity that persons have been considered absolutely dead, when, to the astonishment and delight of mourning friends, the delusion was suddenly dispelled by the unexpected return of the wonted faculties. I may here mention to you the celebrated case of Lady Russell, which so simulated death that the usual preparations had been made for her interment, when she suddenly awoke, as if by the sound of the bell which was tolling for her intended funeral; but imagining it was to announce the commencement of divine service, she hastily called on her friends to accompany her to church. It sometimes happens that the patient, although incapable of making the slightest exertion, is conscious of what is passing around. There is a case of this description recorded, in which the phenomena of death were so well marked that the usual forms were being made for her funeral, as in the case of Lady Russell. Gentlemen, it is much easier for you to imagine than it is for me to describe, what the feelings of this unhappy individual must have been on witnessing these awful preparations, and to contemplate the sudden transition from "deep despair" to indescribable joy, which they experienced when her returning faculties enabled her to avert the horrors of a premature gave, by exclaiming in the frantic tone of triumphant exultation, "I am not dead!" It occasionally occurs in cataleptic patients, whilst all communication with the external world through the ordinary functions of relation, is suspended during the fit, that the faculties of hearing, seeing, tasting, &c. &c., have been acquired by other parts of the individual, which bears no similitude or relation to the organs of sense. There is a case of this description detailed in the first volume of The Lancet for 1832-33, page 663, in which it is related of the subject of the attack, a female twenty-five years of age, that she could, during the paroxysm, although insensible to all stimuli when applied to the organs of sense, hear the lowest whisper when addressed to the epigastrium, the palms of the hands and the soles of the feet; she could likewise recognise certain substances by their peculiar taste or smell, when applied to these newly-gifted regions: she could distinguish colors, and read, with the eyes bandaged; and, what appears to be still more extraordinary, maintain a conversation in a language which she had never learned, on subjects of which she previously knew nothing, and describe with accuracy objects which she had never seen or heard of! This and similar statements are, doubtless, well calculated to put our

credulity to the test; but when we call to mind the extraordinary phenomena which occur in cases of somnambulism, and what we have ourselves witnessed in the case of Mrs. Finn, we are not, in my opinion, justified in withholding our belief of the possibility of facts so well authenticated.

Ecstasy bears a strong resemblance to catalepsy; in both cases the patients, during the paroxysm, lose all connection with the physical world, being deprived of sense and voluntary motion; but in ecstasy, associations of the most pleasing and enchanting nature are established with an ideal existence in an unknown region, which might perhaps be poetically designated the fairy land of an undescried Elysium. In this instance the individual awakes with feelings of disappointment and regret at finding that his enjoyments were visionary, and that he is again doomed to experience the vicissitudes of human life.

When we come to inquire into the causes of these strange diseases, we find that some of them arise spontaneously, and, consequently, their origin will not admit of explanation; others appear to be the result of functional derangement, or mental emotion; a third may be the effect of sympathetic imitation; whilst a fourth, it is alledged, may be produced by the mysterious agency of animal magnetism. The records of medicine furnish abundant examples of the two first; I will not, therefore, occupy your time in enumerating facts which are well known, and with which, I presume, many of you are already acquainted, but at once proceed to direct your attention to a few cases in order to prove the influence of sympathetic imitation and animal magnetism, in causing those diseases. The following case occurred at Bologna, in Italy, and is published in the Gazette Medicale of Paris, for November 1832. "The subject of it was a man aged twenty-four years, who having previously enjoyed good health, suffered a violent moral emotion whilst witnessing the struggles of a female in an intense hysteric paroxysm. In a short time after he himself was attacked with remarkable convulsive movements. These generally commenced in the morning and lasted for different periods, sometimes for some hours at a time. During its accession all external perceptions were abolished in the ordinary channels. The functions of organic life, too, were remarkably troubled. His respiration was impeded, his pulse slow, the extremities were of icy coldness. In addition to these symptoms, something extraordinary was one day noticed. It was found that while he was utterly insensible to, and unconscious of, all sounds directed to the ear, he perceived them distinctly if directed to the pit of the stomach. To questions addressed there he returned immediate replies; but of all that was spoken to his ear he was perfectly ignorant. This singular phenomenon occurred three times, and was witnessed by several individuals before the patient was cured."

Permit me now to remind you of the girl Whitmore, who was admitted into this hospital a few weeks since, in consequence of a distressing pain in the abdomen, of a very anomalous character, which was, by herself, attributed to the fact of her having eaten some berries "she got on a tree." However, I think there is good reason to suppose it to have been of hysterical origin. This girl was in the constant habit of sitting with Mrs. Finn, until she became decidedly hysterical herself; and I understand that since she left the hospital she has been attacked with genuine catalepsy, and is at present in the Richmond Hospital under treatment for that affection. From a consideration of these circumstances and a recollection of the fact that catalepsy is a disease of such rare occurrence that the celebrated Cullen never saw a case of it, I think it is rational to suppose that sympathy had some influence in exciting it is this individual, who, I admit, was constitutionally predisposed to nervous affections.

The advocates of animal magnetism alledge that they can by the exercise of certain manœuvres of the hand, conducted according to "their system," produce ecstasy in such

persons as may be subject to its influence ; many cases in support of the truth of their doctrine have been published, but as I consider one example sufficient for our present purpose, I will merely read to you an extract from Andral's lecture on this subject, in which the following curious circumstances are detailed :—

" In the inaugural thesis of M. Fillazi, defended before our Faculty of Medicine, there is the narrative of an occurrence bearing irresistible proofs of its authenticity, and which seems to me to be sufficient to decide the question. The author then an *interne* at the Hotel Dieu, and totally sceptical regarding the powers attributed to this mysterious essence, this asserted magnetic fluid, formed, for mere amusement, the plan, with a brother *interne* equally incredulous, of submitting this friend to the manœuvres of the magnetizers in the manner M. Rostan describes. The 'passes' were continued for about twenty minutes without any remarkable effect, but at the expiration of that time the young man began to yawn, his eyelids grew heavy, and closed involuntarily; he attempted to shake off this torpor in vain; his respiration next became accelerated, his head fell on his shoulders, and he uttered a sardonic laugh of indescribable expression. We thought (says the narrator) that he was amusing himself at our expense, but in a little time, what was my horror when I saw his fingers turn blue, his head fall powerless forward, when I heard his respiration rattling like a dying man's, and felt his skin as cold as death itself! I cannot find words to describe my sufferings, I knew not what to do. Meanwhile all these horrid phenomena increased in intensity. I tremble at the recollection of what I saw ; there lay my friend, my victim, devoid of the aspect of life, in a state of complete and terrible collapse, with his hand clasped in mine, in a state of agony no tongue could tell of. I laid him on a bed, and waited the result in a state of mind I can never forget. In a quarter of an hour he recovered, and exclaiming that in the ecstasy he had experienced sensations of extreme delight : he passionately begged of me to re-commence the 'passes.' I did so with less apprehension, and again the somnolency proceeded ; the collapse, however, was less profound and terrific, and in some minutes he suddenly awoke with the exclamation, 'What happiness is this!'" However incredible or surprising this narrative may appear at the first blush, yet when we bear in mind that it has been authenticated by a physician of character, who had been himself an unbeliever in the doctrine of animal magnetism, we should not, in my opinion, be justified in doubting his veracity. Our knowledge of the laws of the animal economy is not yet sufficiently perfect to warrant our disbelief in the posibility of certain phenomena, *merely* on the grounds that we did not ourselves witness their occurrence, or because they cannot be satisfactorily explained according to our present notions of physiology and pathology. For my own part, I have made it a rule to receive all information on these abstruse, but very interesting subjects, with feelings of impartialty, being uninfluenced by preconceived theories, and, I trust, not being hypercritically sceptical of the statement of others, and to wait patiently in all matters of doubt, with the hope that time, the growing intelligence of the age, and the advancement of science, will speedily dispel the obscurity.

I now beg your particular attention to the case which has brought us together on the present occasion, and has naturally excited so much interest amongst you for some time past. It will be read to you as it was noted down in the case-book during its progress since the admission of the patient into the hospital :—

" Ann Finn, aged eighteen years, eight months married, of rather full habit, with delicate skin, blue eyes, and fair complexion, was admitted into the Jervis-street Hospital on the 29th of June, for neuralgia of the right side, with which she had been afflicted for the preceding six weeks. At the time of admission there was much tenderness on pressure along the course of the sciatic nerve, from the hip to the knee. The slightest motion caused shooting pain in this direction, and it was acutely felt in the lumbar region on

every attempt at coughing or sneezing. The pain was so severe at night that it prevented her from sleeping. Her general health was indifferent, being feverish, and in bad spirits. She was then (June 29th) about three months advanced in pregnancy. Various topical and general remedies were administered for five or six weeks, viz., locally, leeches, blisters, moxas, and liniments, were applied without advantage. Acupuncturation was also made trial of. She was rather insensible to these external stimuli; even the application of the moxa gave her but little uneasiness. The ointment of veratria, in the proportion of a scruple of veratria to an ounce of lard, was used, but, like the other applications, without the slightest beneficial effect. She took internally at different times, quinine, carbonate of iron, and anodynes of various descriptions; but all medicines administered internally disagreed with her after a few days. About the latter end of July, as she found herself not improving in the hospital, she stated her intention of returning to her friends in the country, and on the 1st of August, much to the surprise of every person in the hospital, she arose, dressed herself, and walked away apparently quite well. During her stay in the hospital she never left her bed, and for a few days previous to her departure she appeared to suffer more than usual. The fact of her thus suddenly recovering the use of the limb after long confinement, made some ill-natured persons suspect she had been malingering; but this was as improbable as the suspicion was uncharitable and groundless. On the 23rd of October she was again admitted in to the hospital, the pain in her thigh being nearly as bad as formerly. She stated that she had miscarried a few weeks after she left Dublin in August, that she had been suffering nearly all the time she was in the country, from the affection of her side. She looked pale and dejected, but had not lost flesh.

Nov. 1. A drunken man, a friend to one of the patients in the ward where she was, abused her for some imaginary offence, and threw her into a violent hysteric paroxysm: she was seized with a kind of retching, became nearly insensible, and her countenance was quite suffused. The globus hystericus was visible, rising in her throat. This fit lasted nearly an hour, and she appeared to be much exhausted after it. She had an attack of this kind almost every day up to the 9th instant, when the character of the paroxysm became altered, and the neuralgic affection appeared to have completely left her.

9. In the fits to-day she commences by smiling, pushing out her legs, and clenching her fists so firmly that it is quite impossible to open them. The jaws also become closely locked; she twists her hands about, and then strikes the bed violently, or if any person endeavors to hold her she resists with all her force. She sometimes catches hold of her own hair, and if not prevented would tear it out in handfuls. She attempts to bite her own or any other person's hand which happens to be near her; and should she not succeed in her efforts she bites the bed-clothes, and if her feet is left loose, she kicks furiously in every direction. Those paroxysms last only a few minutes, but they occur very frequently during the day, and are brought on by the slightest disturbance. In the intervals of the paroxysm she is tolerably well and in good spirits. She has retention of urine, and requires the use of the catheter; the urine is limpid, and secreted in considerable quantity.

13. Fits continued without any alteration in character: the retention of urine also continues, and she requires the use of the catheter two or three times daily. She is perfectly intelligent, but has completely lost her speech. She hears, or will write or make signs to show that she perfectly understands any question put to her, but is utterly incapable of articulating a single word. It appears that she had a paroxysm of long duration last night, and that she has not spoken since.

21. Aphony continues, and the most insignificant monosyllable has not escaped her lips

since the last report. She is perfectly intelligent in the intervals of the paroxysms, which occur more frequently and with greater violence than heretofore. To-day she exhibits a new phenomenon; after each paroxysm she becomes *cataleptic*. About a minute or two after one of the violent fits before described is over, and she appears to be quite recovered, she suddenly drops into a sound sleep, the countenance assumes the most perfect placidity, the eyes remain closed, and when the lid is raised the eyeball is seen turned upwards with the pupil dilated. She maintains whatever position she happens to be in at the time of seizure, with the exception that the fingers are suddenly bent backwards, extended. The arm, fingers, and head, retain any posture they are moved into, no matter how ludicrous or painful, apparently. The legs and feet become too rigid to admit of removal. The toes are always firmly and violently flexed. During this fit she is perfectly insensible to every thing around her, and no stimulus appears to be capable of exciting consciousness. Having remained in this state for eight or ten minutes, she recovers with a moan, and seems to suffer from pain in her left breast. These fits occur twenty or thirty times in twenty-four hours, and as frequent in the night as in the day. Retention of urine continues, but it is secreted in less quantity than before, and is full of mucus. She cannot now retain it as well as formerly, and requires the catheter four or five times in the twenty-four hours. The tongue and pulse are natural. She indicates by signs that she is affected with head-ach. Her appetite is bad, and she has scarcely slept at all since her re-admission into the hospital.

23. The cataleptic fit comes on quite suddenly, continues longer than before, and *precedes* the furious paroxysm. The cataleptic attack is generally of about fifteen minutes duration, and the *subsequent* convulsion about three. When recovering she generally utters a few piercing moans, and places her hands on the left side of her thorax, as if she felt severe pain in the region of the heart. She suffers pain all over the abdomen but it is manifestly the result of morbid sensibility in the nervous system, and quite different from the pain resulting from inflammatory action.

25. The following is the order in which the stages of the paroxysm occur. She becomes suddenly cataleptic, perhaps while in the act of eating, drinking, or making signs in reply to questions which have been put to her. She continues insensible, in the position she happens to be in at the moment for about fifteen or twenty minutes. She is then seized with a violent paroxysm, which lasts only a minute and a half, when the convulsion suddenly stops. She relapses into the cataleptic state, in which she continues about ten minutes, at the end of which time she instantaneously awakes, in possession of all her faculties except speech. The fits recur every five minutes, and the slightest degree of disturbance is capable of producing them at any moment. The pulse is not affected during the catalepsis.

26. The catalepsis continues much longer than heretofore; she remained in one fit this morning without intermission for an hour and a half. An œlian was played close to her ear, but she seemed to be unconscious of what was doing: her head was then placed over a bucket, and some cold water was dashed upon her. She screamed violently, but did not become conscious. She was spoken to on the epigastrium, the palms of the hands and the soles of the feet. When she recovered from the fit on being questioned as to whether she had heard the music or any person speaking, or if she felt the water she answered by *signs* in the negative.

Dec. 1. At 5 o'clock this evening she was seized with an extraordinary difficulty of breathing, which resembles a violent panting, the abdomen and thorax heaving alternately in a most remarkable manner. The respirations as counted by the motions of the chest were 120 in a minute, but by placing the hand immediately over the patient's mouth, it was ascertained that the admissions and expulsions of air into and from the lungs were

very little, if any, more frequent than natural. This new symptoms has not in any degree interfered with the cataleptic seizures, which occur as frequently as before. The pulse weak and quick, beating 108 strokes in a minute; altogether she looks more emaciated and exhausted than she did since her admission into the hospital.

9th. She has remained nearly in the same state as when last reported. The dyspnœa has never remitted even for an instant up to last night, when she had an hour's comfortable sleep. To-day her respiration occasionally stops suddenly, and continues suspended for a minute; her face becomes livid; the arms, which at other times are easily flexed or moved, become quite rigid, and cannot be moved without considerable force; the abdomen is enormously distended during the suspension of respiration, from which she recovers with a crowing noise, when the countenance, arms, and abdomen, instantaneously return to their natural state.

13. She appears improved to-day; had two hours' sleep last night. The spasmodic action of the diaphragm ceased altogether during sleep, and is not near so violent at any time as formerly. The catalepsis now lasts but a few minutes, and on recovering from it she is seized, with a violent convulsive paroxysm, similar to that described on the 9th of November, with this difference, that she does not relapse into the cataleptic state on the subsiding of the convulsions, but is suddenly restored to her faculties.

17. There was a slight appearance of the catamenia yesterday morning, which ceased in the evening; in other respects she remains pretty much in the same state; loss of speech and retention of urine still continued.

18th. No menstrual discharge yesterday, but this day it returned, and is abundant. The interruptions to respiration are frequent, and attended with congestion of the face, rigidity of the limbs, and tumefaction of the abdomen, as before.

21. She can articulate a few insignificant monosyllables, such as 'yes' and 'no;' the inordinate action of the diaphragm has nearly ceased.

25. All this day the catalepsis never at any one time continued more than one or two minutes; the convulsion, which is very violent, lasts three or four. She is sick, and had retching three or four times.

26. About ten o'clock last night, the nurse being absent, she got out of bed to get a drink, her stomach became sick, and she vomited, she says, a clot of blood, and *immediately* found she could articulate. She now speaks as well as ever; says she was always perfectly sensible except when affected with a fit, but on these occasions had no knowledge or idea whatever of anything that occurred.

29. The catalepsis lasts not more than one minute. The paroxysm which succeeds is more violent than it has been at any former period. She strikes at every person about her, as if by design. She sometimes speaks whilst in the convulsion, which ends leaving her in a sort of idiotic stupor, which continues for two or three minutes.

January 3, 1835. On this day she recovers from the convulsive paroxysm without its being succeeded with the 'idiot stupor.'

12. Has continued as last reported, up to this day, when there is a slight appearance of menstruation. She has likewise been attacked with the inordinate action of the diaphragm, from which she has not suffered during the last three weeks.

16. This day she stated, that having been thinking over various matters which occurred to her during the last two months, she recollected having heard a voice one day on the pit on the stomach while she was in a fit, and consequently otherwise insensible. On the occurrence of the first cataleptic attack after this communication, she was spoken to on the epigastrium as on the 26th November; and on the subsidence of the fit she could repeat with accuracy every word addressed to her through this region. This experiment

was often repeated, and always attended with similar results. She could hear the lowest whisper, or even the ticking of a watch. However, she was incapable of distinguishing between the voices of different persons who spoke to her. She stated that the voice appeared to her as if it issued from a barrel, and that she could form no idea whatever of the state she was in.

February 1st. She has been gradually improving ever since the last report, and is now able to get up and walk about the ward. She is sometimes seized with the catalepsis when in the erect posture, and *remains* so during the fit. Retention of urine continues, but in every other respect she appears to be steadily recovering."

Such, gentlemen, is the history of Mrs. Finn's case; the details may appear to be unnecessarily tedious, but when you call to mind that the report introduces to your notice some *new* symptom or important change or modification of the disease, you must perceive the propriety of sacrificing a little time and attention to accuracy of description; for instance, the neuralgic affection, with which she was originally attacked, continued with little intermission for nearly six months, when it suddenly left her on the 1st of November, in consequence of the supervention of a paroxysm of hysteria. The cataleptic symptoms appeared for the first time on the 21st of the same month, and ever since that period the case has been of a mixed character, alternately presenting the symptoms both of hysteria and catalepsy. I will not now detain you with lengthened commentaries on the numerous and I may add anomalous symptoms, which have been already described. However, there is one to which I feel it necessary to call your special attention: I allude to the loss of speech, which took place on the 13th of November, and did not return till the 25th of December. Although this symptom is by no means an uncommon occurrence in hysterical patients, I am not aware that there is any case on record in which *mutism* continued so long without interruption as in this instance. There is one mentioned by Andral, in which the patient, a female, 26 years old, suddenly recovered her speech at the end of ten days' dumbness. It is a curious fact, worthy of recollection, that in this instance, as in the case of our patient, the power of articulation returned immediately after a fit of vomiting. I regret to state, that this very strange phenomenon will not admit of a satisfactory explanation; it cannot be accounted for in the usual way by a reference either to a defect in the intellectual faculties, or paralysis of the tongue, as she was perfectly intelligent, and could move the tongue in every direction with the utmost facility, in the absence of the paroxysm, nor can we say with confidence, that the defect was in the larynx, inasmuch as she was capable of uttering "a crowing noise."

The causes, progress, duration, and the pathological phenomena, attendant on nervous diseases, are so variable, and so imperfectly understood, that it is impossible to lay down any one plan of treatment which will apply to all cases. In our prescription we should be guided by the circumstances peculiar to each individual case. In accordance with this principle the remedies employed in the case of Mrs. Finn were numerous, and varied as circumstances seemed to indicate. For example, when the paroxysms were violent and the countenance was suffused, leeches were occasionally applied either to the temples, spine, labia, or inguinal regions. Embrocations to the temples, and blisters to the nape of the neck, spine, and epigastrium, were also employed from time to time. Internally she got purgatives, antispasmodics, tonics, and emmenagogues of every description.

In concluding this protracted but interesting discussion, permit me to state, although I am vain enough to think that the plan of treatment adopted in this case had a beneficial influence in *moderating* the symptoms, that I ought not confidently to attribute the present improvement either to the skill of the medical attendant or the *specific* efficiency of his prescriptions.

LECTURE DELIVERED AT THE NORTH LONDON HOSPITAL.

By Robert Liston, Esq.,
Surgeon to the Hopital, and Professor of Clinical Surgery in the University of London.

The Dressing and Healing of Wounds.

Gentlemen,—You would observe, that after the completion of the operation in our patient Taylor, the flap was cleared from coagula, and the incisions were put together, and retained temporarily by a very few points of the interrupted suture. Lint dipped in cold water was then applied, and ordered to be renewed frequently for the first six or eight hours, until, in fact, all oozing had ceased, and the surface had become glazed. You are aware that this period is by much the most favorable for union. The parts are then exposed, and dried thoroughly, and any coagulum that may have formed betwix the edges, is carefully and gently removed. Your object is then after the removal of all impediment to union (and clot impedes), to retain the parts accurately, and with the least possible irritation of any kind. This indication is fully answered by the application which you have occasionally seen employed here. It consists of a very strong solution of isinglass in spirit. This is liquified by immersion of the vessel containing it in hot water, and it is readily spread on strips of oiled silk. These are applied in the interstices of the stitches. They speedily adhere, and so firmly, that the points of suture may with the utmost safety be removed within the first twelve hours after the operation. This dressing is not disturbed by serous or purulent discharge, and it is very seldom necessary to reapply it. The plaster adheres much more firmly than any other, and is not productive of the least irritation of the surface. If the strips should be ruffled or detached by any means, their ends are cut off, and fresh bits put on instead, without incurring the risk, by a removal of the whole plaster, of interrupting the adhesion.

The part interested is placed at rest, so that the muscles affecting it are relaxed. The bed-clothes are raised by a cradle or other contrivance, in order that there shall be a free circulation of air around. No other dressing is employed or required. Neither ointments, pledgets, compresses, nor bandages. No one will, surely, now-a-days, pretend to say that there is any healing virtue in a composition of oil, lard, or wax, whatever absorbent earth or metallic oxyde or salt may be stirred up and incorporated with it. Those villainous compounds are applied with a view, it may be said, of facilitating the removal of dressings, and these dressings are applied for the purpose of approximating the edges and surfaces of wounds, and of absorbing discharges.

If the parts be kept cool, and no applications are made which can prevent the evaporation from the surface, the discharge will be but trifling and inconsiderable; and as there are no dressings applied, there is no use in providing for their easy removal. If the divided surfaces do not come together readily without straining, pulling, and compressing, there is no chance of union resulting. The application of a bandage at all tightly, is productive of much uneasiness; it interferes with the circulation; it is thus hurtful. A slack bandage may not quite so much interfere with the curative processes, but it is useless; and as no dressings are put on which need to be thus retained, we had better dispense entirely with its employment. I am as much awake to the benefit to be attained by bandaging, as any one can be; but there must be a clear indication for its use,—some swelling to be got rid of, a certain position to be maintained, or a particular dressing to be kept in its place. When we cut sound structure, and have it in our power, as is then usually the case, to fashion our incisions as we choose, then we should be very much to blame indeed if we did not make them to correspond exactly, and to come together smoothly, without the aid of compression or deligation. There should be no occasion for rolling the

limb from above downwards, "expending two or three five-yard rollers" in pushing and retaining the soft parts over the divided end of the bone, and thus preventing the retraction of the muscles. I have already said that, in the first instance, for any other purpose a bandage is not wanted, and must, if applied, rather prove inconvenient than otherwise; interfering with the circulation, heating the parts, and retaining the discharges, keeping everything in a filthy state, and making the patient uncomfortable, a nuisance to himself and all those about him. I can recollect well the horrid stench that used to issue from a wound at the first dressing four or five days after operation,—the quantities of discharge, the state of the dressings,—soaked and dyed of all hues, black, brown, green, and yellow. You will find in some recent works ample directions for the methodical and "scientific" dressings of stumps. "The straps being adjusted," you are told that it is proper to "apply a thick layer of spermaceti ointment, spread on lint, so as not only to cover the face of the stump, but that it may reach a good way up the limb; over this lay a cushion of lint, securing all with a cross and a thin bandage." A flannel nightcap used to be added to make things look more comfortable. What was to be expected of all this coddling up of a wounded part? What almost uniformly followed—viz. a profuse and rapid secretion of purulent matter, with no inconsiderable swelling. It was a source of wonder and mighty congratulation, when these did not result to their full extent, and when union was discovered to have at all ensued. But all this was of trifling moment in comparison with the state of irritation and feverish excitement in which a patient was kept for weeks by the sponging and soaking of the whole mass of dressing, the tearing away of bandages and plasters, and their reapplication day after day. The first and after dressing were too truly looked forwards to, and dreaded by the patient, as much as, if not more than, the operation itself. Several bandages were again "expended" upon the limb, to within two inches of the end of the stump: and "when this is done, lay the stump down, and remove the straps *one at a time*, sponging away any matter, and cleaning the surface; reapplying a fresh one before a second be taken off, thus going on till all be finished, leaving every here and there a little opening in the line of the incision for the matter to steal away." Then came the spermaceti pledgets and the cushions of lint, the cross, and the roller, again. These quotations are from a recent work, and by a practical surgeon. In spite of all this care the bone used to peep out now and then, necrosis followed, and the patient, if he had vigor of constitution enough to bear up against the constant irritation and profuse discharge, got out of the surgeon's hands, with a pointed, painful, and useless stump.

I cannot tell what the practice in hospitals is at this particular period, but the time was when surgeons were wont to follow, like a flock of wild geese, what they had seen practised by those who had gone before them. Now, gentlemen, I should have you to pursue no practice or recommendation, whatever the source, whether given in books or lectures unless you have got, or can give, a most satisfactory reason for so doing. By pursuing the mode of dressing, the advantages of which I have endeavored to point out and exemplify, you will, in the first place, save the patient all the pain and suffering of which I have spoken, and I can assure you I have not overdrawn the picture. You will have the wound heal speedily, and with very little discharge. You can see, in fact, and without annoying the patient, what is going on, through the dressings. You can take means, by snipping the plaster a little, by the moving of one of the ligatures, for the escape of any little confined discharge; you remove the stitches very early, and have the means also of getting rid of the ligatures, so soon as they become detached. Any trifling discharge that does flow out is wiped away immediately from the taffeta covering the pillow on which the part is laid, and thus all fetor is prevented. In many cases the part lies easy and comfortable with the original dressings till the wound is closed, and the cure is

completed. If, as now and then happens, slight œdema of the part should supervene, or if matter lodges after a free exit is provided, uniform support is given by bandage, so as to get rid of the swelling, or gentle compression is made with the view of diminishing the suppurating cavity.

Now, it happens that many wounds received accidentally can, from the circumstances in which they are placed, heal only by formation of new matter. The wound may have been made with a sharp instrument, and there may be no loss of substance, but it has perhaps run across the fibres, or the edges may not have been brought into exact contact, and discharge has been established. Or, again, there may have been bruising, or evulsion of a part, or lodgement of foreign matter.

Many wounds made purposely by the surgeon, as for the removal of morbid malignant growths involving the skin, must be repaired by granulation. No purpose can be answered by pulling together in any way by suture, plaster, or bandage, wounds of this kind. Any such attempt is necessarily followed by much pain, inflammation, fever, and perhaps sloughing of the exposed surface, or of the surrounding integument.

Discharge, by which the action will be arrested, kept under, or moderated, ought by all and every means to be encouraged. This indication is best answered by heat and moisture. Poultices afford these requisites, but they are upon the whole unpleasant and nasty applications. Even the simplest and best, the bread-and-water, is apt to become rancid, and very soon undergoes such alterations that it is no longer the same soothing epithem as when first applied. We here use (I think you must all be converts to the practice from the experience you have had of its efficacy) water-dressing; lint dipped in water of a temperature agreeable to the feelings of the patient, and that again covered by an ample piece of oiled silk to prevent evaporation. This is renewed from time to time, at intervals longer or shorter, according to circumstances, the quantity and quality of the discharge, &c. The object is to keep the part constantly moist, and lint of two or three folds will remain so for several hours. This dressing is simple enough, gives great comfort, and is unattended with fetor. So soon as the discharge becomes healthy and plentiful, and the surface is covered by granulations, when these begin to get at all large and flabby, then some gently-stimulating or astringent lotion, containing salts of zinc, copper, or alum, may be added gradually, the effects being watched. If the discharge be too much repressed, if the surface begins to be coated with lymph, or if these signs have been neglected, and the surrounding skin also begins to show marks of inflammation, the warm water alone is to be recurred to for a time.

You may have heard of *water* dressing, and it is no new practice to apply this simple element to wounds; Pare discovered that it was by far a more pleasing and curative application to wounds than boiling oils. Many army surgeons have had recourse to it, and the plan has been strongly recommended by a celebrated Dublin professor, not a practical surgeon I believe, and very strenuously claimed for him as a grand discovery by some of his pupils. Many of these gentlemen seem to me to have looked upon the *water* as the medicinal agent. They have applied it pure and of its natural temperature, and even in that state it is more congenial to a wound or sore than the plasters and ointments of the Pharmacopœias, old or new. We, and I doubt not you, will also, when opportunities arise, make the application, but as a substitute, an elegant—if you can use such a term—and effectual one for a poultice, having all its good effects and none of its bad ones, viz., the weight and stench and adhesiveness. The great recommendation of these methods of managing wounds, whether to favor adhesion or cicatrization, is the immense saving of pain and annoyance to the patient, and the abridgment of the curative process. You will observe that no slopping, washing, or sponging the surface of sores, is here allowed. It is not, in fact, wanted. The skin, if soiled, which it seldom is when the

proper system of dressing is followed, may be washed with soap and water, but interference with the granulating surface should never be encouraged or permitted. You see meddlesome dressers rubbing away, at no allowance, the tender surface of a sore, till it bleeds profusely, and the patient shrieks from agony of suffering. These people never seem to think that the discharge is poured out for a beneficial purpose, to protect the exposed and tender surface from the influence of the atmosphere and changes of temperature.

When it is necessary to clean the neighbourhood of a sore, a little fine tow should alone be used for the purpose. In hospital practice the mischievous effects arising from the use of sponges in the wards is incalculable. A patient is admitted, say with a sore in a foul and sloughy state, attended with intolerably fetid discharge, thin and bloody. This condition may be the result of irregular living, of accumulation of filth, of inattention to changing the dressings, and so on. It is not at all necessary that there should be any specific poison applied or generated. The sore is washed, and probably the same sponge is used (it is not at all essential that the same basin and water should) for other patients laboring under wounds and sores. They all degenerate forthwith; they are inoculated with a virulent animal poison, and if proper and active measures be not instantly adopted, sloughing of granulations, of cicatrix, of integuments, and of cellular tissue, with great constitutional disturbance, will result in one and all. Much of the hospital gangrene which invaded and devastated hospitals was so occasioned. No doubt, whatever care may be taken in the best ventilated and regulated hospitals, an unfavorable change will now and then come over the cases, attributable clearly to the state of the atmosphere. But with the attention to the cautions I have given you, such alterations will prove much less frequent and much less dreadful in their consequences. I have had ample experience in this matter, and in an hospital which used to be most notoriously unhealthy. Before I took charge of it, sponges were indiscriminately used for the washing of all and sundry sores and sloughings, for the post-mortem examinations, and for the operations upon the living body. I need not tell you that a most strict and thorough search was made for all such fomites, and that they were, when found, destroyed; that means were taken to prevent their replacement amongst the nurses; that the only sponges in the hospital were those kept exclusively for operations, and under the immediate charge of the house surgeons. Wards badly constructed, and the constant abode of erysipelas and sloughing sores, became henceforward sweet, and so healthy, that under ordinary circumstances, union of wounds seldom failed: no bad test, I can assure you, of their state and condition. When I have the pleasure of meeting you here again, we shall consider the best, most effectual, and most speedy means of bringing ulcers, whatever be their nature or condition, into the state of simple purulent ulcer,—a sore disposed to cicatrize.

HYDROCEPHALUS.

Dr. Dorfmuller notices briefly in *Siebold's Journal* a case of remarkable hydrocephalus, cured by the sole efforts of nature. This occurred in the person of a male infant, aged eighteen months, to whom the author was called, with a view to pronounce if the child was fit for vaccination. The head was three times larger than that of an adult, and the infant was unable to support it, but laid its head constantly on the breasts of its mother; the fontanelles were very large, and the head felt soft and pasty. The rest of the body was tender and weakly, and of a natural size. The author left the infant with the idea that it could not survive many months; but after a lapse of five years, being called on to give some assistance to the mother, he took the opportunity of inquiring after the child, when he was astonished not only to hear that it was alive, but to find on examination that the child's head was now even less than the natural size, while the bones were completely

united and felt hard. The body was well built, and of its proper magnitude. The mental faculties were developed in a moderate degree, and the parents affirmed, that this fortunate result occurred without the assistance of any medical aid whatever.

FRENCH JOURNALS.

We find in the *Journal des Connaissances Medico-Chirurgicales*, published for May, articles under the following heads :—

1. New method of treating ozena and chronic coryza. By A. Trousseau. 2. Researches on several points of opththalmology. By Professor Velpeau. Not yet completed. 3. Theoretical and practical considerations on catarrh in general. By M. Gerardin ; and 4, an article on the marsh fevers of Bougie (Africa), and on the use of sulphate of quinine, in high doses, for their cure. By M. Martinet.

1. New Method of Treating Ozena and Chronic Coryza.—There are few diseases of a simple kind which are more rebellious than ozena, when once fully established. The numerous methods proposed for its cure, and the numerous cases which we daily see resisting all the means employed to combat this unpleasant malady, sufficiently prove the truth of our assertion. Ulceration of the pituitary membrane has generally been considered as the most prevalent cause of ozena ; however, in many other cases, there is evidently no ulceration or breach of surface of any kind ; here chronic inflammation has been supposed to exist by many practitioners ; but this opinion is opposed by a great many facts, and we are compelled to admit that although chronic irritation may develop ozena, it is not the efficient cause of the disease. M. Trousseau adopts an hypothesis which is sufficiently ingenious, and in accordance with several physiological facts. Many parts of the body, the feet, axillæ &c., naturally exhale an odor *sui generis*, and in some individuals a very fetid smell. Whenever the part above-mentioned become irritated or inflamed, this odor becomes still more strong, the irritation exaggerating the natural fetidity to a high degree. The same observation is applicable to the mucous membrane of the nares : in many individuals the odor of the mucus secreted in the nares is naturally strong ; whenever they catch cold in the head (as it is said), this odor increases, and reaches its maximum whenever any cause, such as ulceration, caries, &c., keeps up a permanent fluxion of the nasal mucous membrane. According to this idea ozena may be defined, a peculiar odor of the nasal mucus, which is in general occasioned by a chronic fluxion of the olfactory mucous tissue.

The tenacity of inflammations which attack the mucous membrane of the nasal fossæ has been remarked by all physicians, though nothing is more easy than to combat them by topical means when they effect only the entrance of the nares ; hence the obvious conclusion that the difficulty of the cure depends upon the difficulty of carrying our remedial means immediately to the seat of the disease.

The inspiration of medicated vapors present the most complete means of applying a substance to the whole surface of the nasal fossæ, but is accompanied with the great inconvenience of acting in the lungs at the same time ; hence we are compelled to have recourse to insufflation or injection ; and of all remedies, experience shows the mercurial preparations to be the most efficacious. We may employ the protochlorure or the deutochlorure of mercury, indifferently, after the following formulæ :

℞ *Protochlorure of mercury* 24 gr. ; *Red Oxide of Mercury*, 12 gr. ; *Sugar candy powdered*, ʒ ½.

℞ *Deutochlorure of Mercury* ℈ 2 ; dissolve in sufficient alcohol, and add distilled water ʒ 12. The patient must inspire strongly a pinch of the powder, and repeat it five or six times a day, or mix one or two spoonfuls of the solutions in a glass of warm water and inject. By this simple method M. Trousseau has succeeded in curing several cases of ozena and chronic coryza.

OBSTINATE AMENORRHŒA CURED BY SINAPISMS TO THE MAMMÆ.

To the Editor of The Lancet.

SIR,—About the end of last March I was applied to by a young woman æt. 21, who stated that she had been laboring under suppression of the menses for upwards of eighteen months past and that her general health had latterly become, in consequence, much deranged. The case need not be described in detail; it will suffice to observe that the general symptoms presented were those of confirmed chlorosis. She said that she had undergone a variety of treatment, all of which had been ineffective. She still desired however, to be subjected to a renewed trial of remedial means. I accordingly kept dosing her in good earnest for seven weeks with aleotic purgatives, mineral tonics, vegetable bitters cantharides, secale cornutum,—indeed, until I had exhausted the whole tribe of the emmenagogues, without being able to effect even the slightest appearance of the subsidence of the disease although my patient's life was one of activity, and therefore the more favorable to her recovery. Recollecting at last that I had read in some number (the eleventh I believe) of the *Dublin Medical Journal*, a paper by one doctor Patterson, relating two cases of amenorrhœa which had been relieved by the application of sinapisms to the mammæ (several similar cases also having been very lately related in THE LANCET), I recommended a sinapism consisting of equal parts of powdered mustard and linseed-meal, and warm water q. s., to be applied over the whole of the right mamma at bed-time, and there suffered to remain as long as it could be borne. The sinapisms was continued on for above an hour and a half, and on the evening of the ensuing day I found the breast very painful and much swollen, presenting general inflammatory redness of the skin, which symptoms were so much increased on the third day as to cause considerable symtomatic fever, and compel my patient to remain in bed. It was my intention, should this painful application to the one breast not succeed, to treat the other similarly, but fortunately, I had no occasion to do so, for, on the fifth day after the application of the sinapism, the catamenia appeared in considerable quantity, and continued to discharge for nearly four days. The young woman has since menstruated regularly, and is now restored to perfect health.

I am, sir, your obedient servant, JOHN JONES.

Llanfair, Montgomeryshire, May 12, 1835.

CASE OF TWINS—ONE PRESENTING THE COLOR AND FORM OF A MULATTO.

Reports of the La Charitie, Berlin.

Ch. A., 22 years of age, was delivered, on the 25th of January 1832, of two female children, seven months old. The second was immediately distinguished from the first born, by a peculiar blue-gray color of the face, hands, &c., and drew the attention of its mother, who exclaimed "I thought so."

In size and weight both children resembled one another, but the head of the second child was much more flattened at the sides; the forehead was low and compressed; the eyes were more distant from one another; the lips thick, the nose broad, and turned up; the color of the face, hands, and feet, resembled that of a person who had taken nitrate of silver; it was also remarked that the umbilical cord of the first child was white, while that of the second was dark.

Both died a few hours after birth, and were presented to the Royal Museum by M. Rudolphi.

On being questioned, the mother would give no information about the children, but some time after confessed that she had "gone to see" a black in the month of October past. However, it was discovered that for a long time previous to January she had been a domestic in a house where a negro was in the habit of constantly going. [We suspect the negro *went* rather too near her.]

MARSH FEVERS—QUININE IN GREAT DOSES.

The town of Bougie (one of the points garrisoned by the French in the neighborhood of Algiers) is built on a semicircular range of mountains near the sea, and looks down upon a large open plain, in which the mountain streams discharge themselves and stagnate. Hence the troops stationed in this marshy situation were extensively attacked with intermittent fever, which, in a great number of cases assumed the character of the malignant fever of warm climates. Without being deceived by the apparent inflammatory or nervous symptoms with which the malignant intermittent fever often commences, the author immediately had recourse to the sulphate of quinine as an antidote, but soon discovered the inefficacy of this remedy in the doses ordinarily employed; he therefore acted with more boldness as soon as any symptoms of the fever appeared, and gave from forty to sixty grains a day; usually one half by the mouth, the other by the rectum. Opium was associated with great advantage with the quinine, in the quantity of four to six grains per day. These means were also seconded by general and local bleeding and revulsives.

Although the doses of the sulphate of quinine were carried so high (two scruples daily for several days), the author never observed any of those toxicological phenomena which a great number of writers on the materia medica attribute to this preparation when given in large quantities. The necessity of keeping the soldiers constantly in the same quarters, and the repeated exposure to the malignant exhalations, gave rise to numerous relapses, and hence those who were cured once, twice, or even three times, sank under repeated attacks of the disease. This explains the apparent aggravation of the fever at a later period, and the diminished efficacy of the sulphate of quinine. Thus at the commencement (July 1st, 1834) the garrison of Bougie numbered 3300 men. During the first two months the mortality amounted only to 1-35, while six months after the invasion of the fever it had destroyed 1-5 of the whole number. The following resumé shows at once the extensive influence of the miasmatous poison and its intensity:

Garrison of Bougie, July 1, 1834	3300
In hospital at that time	121
Received into hospital from July 1 to December 31	3563
Discharged	804
Died in hospital	441
Died after being discharged	175

The principal point to be noticed with regard to the observations of M. Martinet is the fact that sulphate of quinine in ordinary doses has little or no influence over some forms of the malignant intermittent fever, while its beneficial effects are instantly perceptible if the dose be carried to ten or twelve times its ordinary quantity.

DISEASES OF THE WORKING CLASSES.

A great number of philanthropists and medical writers have bestowed considerable attention on the diseases by which the working classes are afflicted, but when we read the works which are specially dedicated to this branch of medicine, we cannot help being convinced that many have been written with a spirit of exaggeration which almost renders them useless, while others are founded upon facts too carelessly compiled, or not sufficiently numerous.

Thus if we consult the otherwise excellent work of Mr. THACKRAH, we find the diseases to which printers are liable (p. 42) dispatched in a few words, and the term of fifty years assigned as the maximum of longevity for compositors, although it is notorious that many of them reach sixty, seventy or even eighty years of age.

It is only by having recourse to the workmen themselves or their employers that we

can expect to verify the assertions contained in authors. Such has been the method pursued by M. Chevallier; without being discouraged by the unsuccessful efforts of those who preceded him, he at length obtained about 33 written answers to 400 letters which he addressed to the different master-printers of Paris. He also examined verbally a great number of workmen, apprentices, &c., and from these two sources drew the materials which compose the essay now before us.

If we are to believe authors, the profession of printer is unhealthy, 1st, as the workmen are subject to painter's colic and paralysis; 2ndly, as determining various other diseases. After a minute and very laborious investigation into the different assertions put forth by writers upon this subject, M. Chevallier concludes that the profession of printer is by no means so unhealthy as has generally been imagined. The eyesight of the compositors is very often injured, and many of them are compelled to wear conservers at the age of 45; but amaurosis only attacks them accidentally. As to the question whether printers are subject to attacks of colica pictonum, the answers obtained by M. Chevallier were contradictory; thus, twelve master-printers averred not having observed colic of this description; however, a still greater number attested the existence of the disease in their work-shops, and the accounts given by the compositors themselves left little doubt on the subject.

The colic which attacks printers depends in all probability on the introduction of a metallic oxide into the economy; the dust of the press-rooms contains a quantity of this metallic powder, and it is a curious circumstance, confirmed by a great number of witnesses, that it is almost impossible to rear up cats in these establishments. The prevalence of painter's colic, however, is much less extensive now than formerly, from a difference in the composition of the characters, and from the greater cleanliness of the workmen. Are printers subject to diseases of the chest? This question has been examined with great care by the author, who concludes that printers are not more subject to pectoral disease than any other class of workmen: cases of paralysis are also rare, and chiefly observed in the old or intemperate workmen. In a word, if we are to take the evidence given by the masters, a working printer who is sober, and of steady habits, is not subject to any disease that can be attributed to the profession which he exercises.

Mr. Thackrah, in his work on the diseases of mechanics, &c., gives it as his opinion that scarcely a single printer can be found beyond the age of 50. This may be the case in the large towns of England, but it is not applicable to Paris. In twenty-three printing-offices the ages of the workmen were examined by M. Chevallier, in twenty the ages varied from that of the apprentices up to fifty, sixty, and seventy-five; in three only the oldest workman was not beyond 40 or 45 years of age; in one office, amongst 35 or 40 workmen, twelve were between 45 and 70 years of age; in another there were twenty from 40 to 60; and the master of the third declared he had himself known more than fifty workmen beyond the age of 60. During the year 1831, twenty-five printers died in the different hospitals &c. of Paris, whose ages varied between 55 and 78; and the author quotes the names of fourteen workmen actually employed of 70 years of age, and one of 80. The celebrated printer M. Didot had a workman who reached the age of 86, and M. Firmin Didot another who worked to the age of 84.

MEMOIRS OF THE ROYAL ACADEMY OF MEDICINE.

Third Fasciculus, 1835—Published May 15th.

The present number does not contain more that one paper of high interest. We find in it, 1st. Some Remarks on Lithotrity. By M. Civiale. 2nd. Some Experiments instituted to prove the Efficacy of the Hydrate of the Peroxide of Iron as an antidote to Arsenic. By M. Boullay. This paper we have already analysed. 3rd. A Memoir on Tubercles.

By M. Ravin, a long academic history which contains more learning than practical matter. The only paper, therefore, which we shall analyse, is the first.

Lithotrity and Lithotomy.—A severe controversy has been carried on in France on the subject of lithotrity, and on the results of the operations performed at the *Hospital Necker*, between MM. Civiale and Larrey. The question of the cure of stone has again lately occupied the attention of the French Academy, and given rise to some warm debates between the respective supporters of lithotomy and lithotrity. On these occasions M. Velpeau, the reporter on a memoir by M. Leroy d' Etoilles, showed himself a firm advocate of the bistoury, and debated the statistical question with his usual learning. According to M Velpeau, between the years 1719 and 1728, 1200 calculous patients were cut for the stone at the *Hospital of the la Charité*. Of these 255 died, and 945 were cured. At Luneville, Saucerotte cured 1482 out of 1629 patients. Dupuytren lost 61 in 356 cases. In England Mr. Crosse has published an exact table of 704 operations, amongst which 93 were fatal. Cheselden lost 24 cases out of 213, and Frere Come 19 in 100 cases. M. Souberbielle, who operates almost exclusively above the pubes, lost 17 in 133 cases; and M. Dupuytren in 70 patients, upon whom he operated by the bilateral method, lost only 4. M. Renzi has lately published an account of the operations for the stone performed at the great hospital at Naples for a series of years. In 389 cases there were only 60 deaths. Pajola lost 5 patients in 50; Panza 5 in 70; Ouvrard 3 in 60; M. Virice 3 in 83. Perhaps the most successful of all operators in Europe was, Mr. Martineau of Norwich, who lost 2 in 84; while Mr. Dudley, in America, lost only 1 in 72 patients on whom he operated. The result of this statistical table is very favorable to lithotomy; but we cannot help observing with M. Roux, that very few surgeons, except under particular circumstances, have kept an exact register of the operations they have performed and of the results obtained. That M. Roux who has already performed between 700 and 800 operations of lithotomy, cannot say positively what is the amount of mortality in his practice, he estimates it at 1 to 5 or 6 for the adults, and as 1 to 20 for children, but merely proximitively. We believe that the same remark would apply to most surgeons who have operated extensively for the stone. At Norwich, we know an exact register is kept of all the calculous patients, &c.; and where a surgeon has lost only one or two patients in his practice, he can easily remember the amount of deaths, though he may be tempted to exaggerate the number of cases; but in many instances the results are merely approximative, and by no means so exact as those furnished by the lithotritists.

However, to return to M. Civiale's memoir, of which we shall notice only those points which have not been so fully touched on in books. M. Civiale considers the lithotritic instruments which are generally sold, as defective. They are commonly too large; the branches of the litholabe are too feeble, and its hooks are too short. On the contrary, the stem of the perforator is too large and too straight and its lateral teeth are not sufficiently long. Besides, most of the instruments are furnished with a vertical opening and a longitudinal canal, which is destined to permit the introduction of fluid into the bladder without removing the instrument but these additions are useless, and only serve to weaken it.

One of the principal objections made to M. Civiale's method of operation, by perforating the calculus, is the necessity of seizing the stone by its different phases, of perforating it in various directions and thus rendering the operation long and complicated; but when the calculi are small, or even of a middle magnitude, from twelve to fourteen lines in diameter, they are either easily crushed without perforation, or require only one or two perforations to reduce them. The successive perforations are only necessary when the stone is hard and very large. The number of sittings must of course be proportioned to the number, volume, and size of the calculi, and to the state of the urinary organs. These

have been much exaggerated in France by the opponents of lithotrity: thus up to the month of July last, M. Civiale had operated upon 244 patients, and the average of sittings was four and a fraction for each patient.

After having pointed out several of the disadvantages attending the use of instruments which are designed to operate by simple percussion or pressure, such as the difficulty of seizing the stone with a two-branched instrument, the pain occasioned by manœuvring it, the difficulty often experienced of closing the instrument, so as to withdraw it from the bladder, &c., M. Civiale passes to the most interesting part of his memoir, viz., a statistical account of the operations performed at the *Hospital Necker*, with their results.

Two reports were made in 1831 and 1833 on this subject, by MM. Double and Larrey. According to these, M. Civiale had operated upon 61 cases, of which he lost no less than fifteen, giving a proportion of one to nearly four. Let us see how M. Civiale explains this in his memoir presented to the Academy. The first *compte-rendu* for the year 1831 of the *Hospital Necker*, comprised a series of sixteen calculous patients. Of these, five presented such unfavorable conditions, that any operation was impossible. Of the remaining eleven, four were cut and seven were operated on by lithotrity. The latter all recovered; three out of the four patients cut, died. M. Civiale also acknowledges having tried the new method upon two of the subjects not operated on, but he does not state in what these trials consisted.

In the report of M. Larrey upon this *compte-rendu*, the facts were represented in a very different light. The number of calculous patients was estimated at 26 instead of 16; the number of deaths at 11 instead of 3. It seems difficult to explain this strange difference of statements; but M. Civiale points out the sources of error into which the reporter fell: —1st. He included sixteen months in his report instead of twelve; 2nd. He considered all the patients received as calculus; 3rd. He supposed that all those who were affected with calculi had been operated on.

The second *Compte-rendu* embraces a period of twenty months, and includes thirty-five cases of stone; twenty patients were operated on by lithotrity, and four by lithotomy; eleven were not operated on; the twenty patients operated on by lithotrity were all cured. Of the four patients who were cut for the stone, two died; five of the patients who were not operated on left the hospital, and the six remaining died in consequence of the disease. Amongst these latter the death of two patients was considerably hastened by the explorative methods employed. Finally, from the year 1824 to the year 1833, M. Civiale performed 244 operations of lithotrity, which have furnished 5 deaths, 236 cures, and 3 incomplete cures. He proposes to detail in full the facts of each operation, and thus place its authenticity beyond doubt. The following table will give a concise view of the state of the question between M. Civiale and his adversaries.

Hospital Necker, 1830-31-32.

Patients with stone (according to the reporters 53)	51	Operated on by lithotrity	27	cures	27
		By lithotomy	8	cured	3
				died	5
		Patients not operated on	16	left hospital	6
				died there	10
Patients who had no stone (according to reporters 40)	42				
Patients received	93 exact.				

The above table is drawn from M. Civiale's statement. According to MM. Double and *Larrey the numbers* will run thus:—

Patients	93	Exact.
Patients affected with calculi	52	There were 51.
Patients not calculous	40	There were 42.
Cured by lithotrity	27	Exact.
Calculous patients not cured by it	26	There were only 24.
Calculous patients lithotrized and who were not relieved from the stone	6	These were never operated on.
Died after the operation	10	Not operated on.

It will be seen that the proportion of mortality is chiefly augmented by the reporters' having taken into account 16 cases which were not operated upon. It seems strange that so considerable a number of the latter should have died, but a great many were in a desperate state when they presented themselves at the hospital. In one case the patient was brought in dying, and the catheter was never introduced into his bladder. In eight other cases the stone was so large, and the organic derangements were so far advanced, that simple sounding showed the inutility of any operation. In the seven remaining cases the patients had been repeatedly explored with the litholabe, and in two instances an aggravation of the symptoms was brought on, but these preliminary examinations by no means merited the name of operations. Whatever doubt still hangs over the question in France, this one thing is certain, that M. Larrey has fallen into several errors, and that the document which he consulted did not in any way justify the conclusions he has drawn to the prejudice of lithotrity.—*London Lancet.*

EXTRA UTERINE FŒTATION.

From the Dublin Medical and Chemical Journal.

As an interesting record in medical literature, we cannot avoid extracting for the notice of our readers, the case of Extra-Uterine Fœtation, by Dr. Macartney.

"Ellen Roche, Cranmore, two miles from Newtownbarry, æt. 40, brown hair, fair complexion, has had four living children, and aborted of a fifth. States, that about nine months ago, being within a few days of her full time of a sixth child, she received a kick from a cow in the abdomen while in the act of milking her, in consequence of which she was knocked down and rendered insensible. In this state she was found by her family, and carried into the house. After being laid on a bed, and recovering a little, she complained of intense pain in the region of the uterus, followed by sickness of stomach and frequent vomiting of matter, resembling in color the grounds of coffee. With little abatement of her symptoms she continued for some hours, when she was visited by the surgeon of a neighboring dispensary, who took a large quantity of blood from her arm, and prescribed some medicines. with a view of allaying the irritation of the stomach. By this treatment she experienced considerable relief; the pain in the lower part of the belly, and sense of bearing down, continued until the evening of the fifth day, when she was attacked with all the feelings and symptoms characteristic of her former labors.

"After continuing without intermission for eight hours, and when expecting every moment to be delivered, the uterine pains suddenly ceased, and did not return again. On the following day the mammæ were fully distended with milk, and that secretion presented itself quite as copiously as on previous occasions. From all the symptoms of parturition she became quite free in the course of a few days. There were no after-pains, neither was there any discharge of blood or liquor amnii per vaginam. The only unpleasant sensation experienced was that expressed by herself, of 'a dead, heavy load,' and bearing down at times much increased when in the erect position. After the expiration of some weeks from this period she began to feel the body and limbs of the child through the

parietes of the abdomen, and at the time she consulted me they were still more evident to the touch. By placing her in a recumbent position, we could readily bring a portion of the fœtus to be distinctly felt by the hand. A leg, arm, and the face, were alternately presented for examination, and we could with the utmost facility delineate the knee, ankle, and toes of the first; the elbow, hand, and fingers of the second, and the forehead, mouth, and chin of the last, were as clearly perceptible as if handled though a couple of folds of linen. It seemed to require considerable exertion on the part of the poor woman to effect this object, as she complained of much weariness and lassitude afterwards. From repeated examination I was convinced that the abdominal parietes to the normal extent of integument, fasciæ, muscles, and adipose tissue, did not exist between the fœtus and my hand. At the present time she appears to be in excellent health and spirits, and pursues the usual avocations of a farmer's wife, without suffering any serious inconvenience. Her general health and appetite are also good; bowels regular; micturition unimpeded. The catamenia returned in about six weeks after the accident, and have always since been present at the accustomed period and in the usual quantity. She has not had any soreness or tenderness on pressure of the abdomen for the last seven months. On being questioned, she replied with honesty, that she had renewed the connubial intercourse with her husband shortly after the return of the catamenia, and persisted in it undeterred by the probability of impregnation or its consequences."

Not doubting but that if the same investigation of cases simulated by the symptoms were made many would be found, we are anxious to obtain a record of any and all cases of this kind, recorded or unrecorded, and our readers would oblige us by doing so.

MORBID ANATOMY OF THE PLAGUE.

Summary of the Cadaveric Appearances Observed in Sixty-eight Plague Subjects.

By Dr. Rigaud,

Physician to the European Hospital at Alexandria.

The exterior of the body, in those cases where death has ensued rapidly and without any medical interference, is bluish and dark violet, in large irregular patches, especially about the head, the neck, and the upper extremities. It looks as if the parts were rubbed over with mulberries, This discoloration, which is often absent when death has taken place slowly, is also accompanied by petechiæ, varying in size from a flea-bite to a vetch. One or more buboes are found in the groins, axillæ, and about the parotid glands; more frequently, however, the buboes are lower down. There are, besides, one or more carbuncles about the body in different parts, but generally on the limbs, the neck, or the chest. The cadaveric stiffness is well marked; the muscles are prominent, but the hands are seldom clenched.

Head.—The encephalic membranes injected and gorged with black blood. The vessels beneath the arachnoid, greatly distended, present to the naked eye ramifications the most profuse and intricate; the arachnoid, however, itself is rarely thickened; it is mostly adherent, by a buffy and granular transudation, to the upper and inner parts of the cerebral hemisphere, in such a manner as to draw a part of the vessels away with it, when it is sought to be removed from the cerebral mass. There are sanguineous effusions, in some rare cases, beneath the arachnoid; but more frequently the cellular subarachnoid tissue is infiltrated with a serous fluid, sometimes pinkish, sometimes yellowish, and even occasionally purulent-looking.

The brain, when sliced, shows innumerable close dottings of blood; the cineritious substance is more deeply colored than natural. A little limpid serum is generally found in the ventricles. The choroid plexuses are of a reddish-violet color, like lees of wine. The *brain is seldom softened.*

The membranes of the spinal cord are like those of the brain: and the cephalo-spinal fluid is in excessive quantity. The substance of the cord in the same state as that of the encephalon.

Chest.—The lungs are generally observed to be in an anormal condition; but the lesions have commonly a relation to antecedent maladies. On their exterior they are ordinarily rose-colored, but in some instances pale yellowish, and marbled with blue; this is when they are bloodless. Posteriorly they are always of a deep violet, their blood-vessels being gorged with black and thick blood. When squeezed, they generally give out air, mingled with foam. Drops of pus, in one case, exuded from all the air-cells, on being cut.

The pleura always of a deep red, with numerous adhesions. Effusions of a yellowish serum, in abundant quantity, are frequently met with in the cavity of the chest.

Heart.—The pericardium usually contains from half a pint to a pint and upwards of serum. The heart seems increased in volume, and its superficial vessels are well defined in their most delicate courses. Spots, like petchiæ, are observed over the left cavities. The right cavities,—the auricle especially,—are distended with black blood, sometimes clotted but always gluey. On the left side the cavities are empty, with the exception of a very little blood in the ventricle. The substance of the heart and its inner membrane are found unaltered.

The arteries are almost always empty; the veins, on the contrary, distended, and full of black clotty blood,—the jugulars more particularly; and while the inner coat of the arteries has presented no alteration, that of the veins has been found spotted largely and irregularly, as if with ink. The pharynx and œsophagus commonly normal: the latter, too, has even been observed perfectly healthy, when it terminated at the cardia of a stomach suddenly and intensely inflamed thoughout.

Abdomen.—The peritoneum is always of a pink or bright red tinge, and beneath it the vessels are seen traversing perpendicularly, largely gorged with black blood. The adipose tissue underneath is injected and reddened; sometimes darkish, like lees of wine; and again puriform occasionally. The intestines of a rosy tint, arboresent, and mottled according to the different degrees of inflammation at different points.

In the stomach there is often found a quantity of gas, and darkish viscid liquid, like a mixture of bile and putrid blood. The mucous membrane varies in color, from pink and bright red to a brown, bluish, or leaden tinge, and frequently to a bronze green. Large patches, of an ecchymosed appearance, and petechial spots, are also observed in the interior. Ulcerations, moreover, are met with, and such a degree of softening of the inner coat as gives way before the handle of a scalpel lightly drawn along it.

The intestines in a simular condition, excepting the colon, which seems less inflamed, and even contracted. Lumbrici were found in many of the deceased; no less than thirty-seven in one individual; likewise several teniæ. The mesenteric glands engorged, and blackish; indeed, the whole glandular system is always more or less altered.

The liver is almost always enlarged, especially in its larger lobe, which presses up the diaphragm very much on the right lung. Its vessels are gorged with blood, but its tissue seems to be unaltered. The gall-bladder double or triple its natural size, containing a thick, greenish-black bile. Petechial spots beneath its peritoneal lining. The kidneys gorged with blood; the ureters arborescent, with a bright red hue along their entire course, or covered with black spots, or even wholly blackened, as if with charcoal or ink.

The urinary bladder almost always half contracted on itself; its inner membrane exhibits occasionally the same sort of reddish spots seen in the stomach and intestines. The spleen is augmented in volume, softened, friable, and pulpy.

The nervous plexuses (the solar and semilunar) examined in the above thirty cases, presented no appreciable alteration. The thoracic and cervical ganglia, on the contrary—

more especially the former—have appeared to be more developed than natural, injected both in their neurilemma and their substance. Their color is reddish or violet, and their texture more firm, and even harder, than in the natural state; and these appearances are chiefly observable about those nerves which communicate with the lymphatic glands.

In every part of the body the cellular tissue is found impregnated with red blood; the muscles also are of a bright red hue, and exude blood abundantly.

Such were the appearances noticed in examining the bodies of persons who died of plague—all Europeans, but wretches given up to every excess of intemperance and debauchery. At every autopsy there was present one medical practitioner at least, often several; so that the correctness of the reports may be depended on.*—*Lond. Med. Gaz.*

Alexandria, May 19, 1835.

STOMACH AND COLON IN THE CHEST.

Communicated by Sir J. M'Grigor, Bart.

In the Museum of the Medical Department of the Army at Chatham, No. 63, class vi, displays the whole of the stomach, and the greater part of the transverse arch of the colon, situated in the left cavity of the chest; which malposition is supposed to be owing to a wound of the diaphragm by a musket-bullet, received in 1811.

This very interesting specimen was taken from the body of Sergeant Dennis Barry, 88th regiment, aged 44 years, who died on the 4th January, 1833, in consequence of gangrene of the left lower extremity, produced, as it was supposed, by metastasis of a severe rheumatic affection of the larger joints. (For details of case, *vide* third volume of Original Documents, No. 16.)

The only information which can be obtained, calculated to explain the cause of the remarkable malposition of parts seen in the preparation, is as follows:—On the day preceding the battle of Fuentes d'Onor (which occurred in 1811), Sergeant Barry and his company being out skirmishing, one of the enemy, posted on the top of a steep hill, fired as he (the sergeant) was in the act of descending the same, and wounded him in the chest. The ball entered close to the nipple of the left breast, and passed out at the back, between the 8th and 9th ribs, as was evident by the scars seen at the post-mortem examination. It is stated in the document that the anterior opening of the wound soon healed, but the posterior one did not do so for a considerable period. When the latter closed, he became affected by such severe cough, with expectoration, that his medical attendant deemed it proper to lay the same open again. Being kept so, the symptoms were relieved, and portions of his shirt and jacket discharged. After this his health improved so rapidly as to enable him soon to rejoin his corps.

It appears, however, that the wound of his back afterwards repeatedly opened and healed—generally at intervals of twelve or fourteen months; but for the last five or six years it ceased to do so. It is stated that his appetite was very small and delicate; flatulency, &c. also much complained of; and if at any time the stomach happened to be overloaded, vomiting occurred. Bowels generally regular. The chief bad effects which this person himself attributed to his wound were—that since receiving it he never had been able to wear his knapsack with ease; and that his breathing became much affected whenever he walked at a quick pace, or ascended a hill.

Remarks.—For the sake of those who may see the Catalogue of the Museum, but not this specimen, it will be necessary to describe the exact relations of the objects. The stomach and the greater part of the transverse arch of the colon (both rather small) are situated in the lower and anterior parts of the left cavity of the chest; the lung of this side, as might be expected, has become a good deal reduced in size, and occupies only

* Read before the Academy of Medicine in Paris, at the sitting of the 30th ult.

the superior and posterior part of its proper cavity. The great arch of the stomach lies atlantad. Right lung smaller than left, from the circumstance of the heart being so displaced by the stomach and colon, that instead of extending across the thorax from the second rib of the right side to the sixth of the left, as that viscus naturally does, it now lies nearly parallel with the spine, having the apex almost on a line with the coronary ligament of the liver. The right lung therefore is smaller than the left, because the heart, of ordinary size, and situated in the anterior part of that cavity proper to the former, proved much less yielding during inspiration than the stomach and colon were in the other.

It is probable, from appearances, that the wound of the diaphragm extended about three inches in a transverse direction, near to the centre of the dorsal attachments of that muscle. But as the objects forming the hernia have contracted firm adhesions to the parts formerly injured, and as the peritoneum lining the diaphragm seems in many places quite continuous with that covering the intestines which pass through the preternatural aperture, there is on that account considerable difficulty in ascertaining this point with due precision. Nevertheless, an attentive consideration of the positions of the parts will easily enable the examiner to account for all the symptoms which Barry complained of since being wounded in the manner above described. As, also, he enjoyed perfect health before that period, and was even remarked by his officers for being an active soldier, it follows of necessity that the singular malposition of the parts seen in the preparation must have been the result of a wound in the diaphragm, and was not congenital, as some who have seen the preparation seem inclined to consider it. To these last the following explanation of the symptoms may be given :—Why did the breathing of the patient always become affected when he walked fast or ascended a hill? Because of the capacity of the chest being diminished by the presence of the stomach and colon in it. Why the dyspeptic symptoms? Because the great arch of the stomach was turned upwards, and the parts otherwise displaced. Why did vomiting always occur when the patient took more than a small quantity of food? Because the distention of the stomach impeded respiration; and the latter function influenced that of the former to such a degree, that the nervus vagus, or pneumo-gastric nerves connected with both, became affected, and vomiting was the invariable consequence.

Altogether this case and preparation are exceedingly important, as showing that wounds of the diaphragm do not necessarily prove fatal. It must, however, be confessed, that several circumstances were much in this patient's favor :—1st, It appears from the document, that for nearly forty-eight hours previous to the receipt of the injury, he had been unable to procure food; and his constitution also being hardened (if I may use the expression), by the exercise consequent on an active campaign, it may be supposed that little predisposition to inflammatory action existed. 2dly, But by far the most favorable circumstance for his recovery was that the diaphragm had been separated from its dorsal attachments instead of receiving an injury nearer the centre. In the former situation are but few branches of the phrenic nerve; and if here the muscular fibres had been detached from their origins, no reason can be mentioned why they should not adhere to the parts in their vicinity. In the latter, however, the accident probably would have been fatal; for as the fibres of the diaphragm converge towards one centre, any wound made in them could not heal, from antagonist forces keeping it open; and also, as the muscle is here plentifully supplied by branches of the important phrenic nerve, the probability is that some of these might be injured by the wound, which, being disturbed by every respiratory effort, such continued nervous irritation must have been produced as could not fail to destroy the patient.

I have taken some pains in examining the authorities as to wounds of the diaphragm.

In several works, mention is made of recoveries from such injuries, but the patients are described as living in a state of great suffering, owing to the functions of the parts which may have protruded into the cavity of the chest being impeded. As far as I am aware, there is not a case on record of a displacement, such as that detailed above, being attended with so little inconvenience to the patient.

F. M'Crae, M.D.
Staff-Assistant Surgeon.

THE LATE M. DUPUYTREN.

The funeral *cortege* of this distinguished professor was composed of members of the Faculty of Medicine in scarlet robes, of a deputation from the Academy of Medicine and the Institute, amongst whom were M.M. Poisson, Arrago, Thenard, Larrey, and Parriset; of a number of peers and deputies, artists, physicians, and of all the pupils of the school where the deceased lectured. It set out from the abode of the eminent dead, in the Place St. Germain l'Auxerrois. The place of interment was the romantic Pere la Chaise, into which the great master's pupils drew the body.

Around the place of interment, the crowd, which was immense, formed a circle, and, in the midst of the most profound silence, M. Orfila, of the Faculty of Medicine, pronounced the following discourse.—

"Death has just struck a fatal blow, in taking from science, his family, and friends, Dupuytren, while still in the vigor and strength of life. The loss of one of the most illustrious surgeons of Europe will sound in tones of lamentation throughout the whole world. Those learned societies which were honored by counting our colleague of their number, that great hospital where his genius shone with such *eclat*, and, if possible, still more the Faculty of Medicine of Paris, of which he was so distinguished an ornament, have now but to express their grief, and to mingle their regret over a tomb, in which are about to be deposited the remains of one so celebrated. Eloquent peers will undertake the task some day of proclaiming the scientific titles of Dupuytren, whose life, too short, alas! was wholly consecrated to the teaching, practice, and perfecting of that art whose boundaries he extended.

"You will hear without surprise our academicians boast of the depth of observation, the enlightened knowledge, and elegance of style, which gave our late colleague so high a rank in the discussion of the most difficult questions. The physicians and surgeons of France will be unanimous in the sentiments of admiration he inspired, both by his numerous discoveries, and by the impulse which many branches of science received from his talent.

"Speaking as the organ of the Faculty of Medicine of Paris, I should, perhaps, chiefly point out all the services which he conferred upon it, by drawing a faithful picture of his services as a professor; but how could I undertake such a task, thus suddenly called upon to speak of one whose career was so brilliant, and while my mind, full of the melancholy event which has brought us together, has scarcely time to depict the leading features of his career.

"Dupuytren, Professor of the Faculty of Medicine of Paris, Member of the Institute, of the Royal Academy of Medicine, and many other learned societies, native and foreign, formerly Inspector of the University, Officer of the Legion of Honor, Knight of the Order of St. Michael and St. Wladimir, &c, was born at Pierre Buffiere, in the department of La Haute Vienne, the 5th of October, 1777. Devoting himself early in life to the study of medicine, he soon rendered himself remarkable in the eyes of his instructors by his continual application, and his happy disposition, and he speedily commenced the study of pathological anatomy and surgery.

"Gifted with a high faculty of eloquence and profound knowledge, he had from the commencement a numerous school to his private lectures, and took rank amongst them, destined to render the rank of a professor distinguished. He was appointed Professor in in 1795, on the reorganisation of the school, and before he had attained his eighteenth year. In 1801 he obtained the place of chief in the anatomical department; in 1802, that of Assistant-Surgeon at the Hotel Dieu; he was called in 1812 to fill the chair of operative medicine, vacant at the Faculty by the death of the celebrated Sabatier; finally, he became Professor of Clinical Surgery in 1815, and Chief Surgeon of the Hotel Dieu in 1818.

"The greater part of these appointments were obtained after brilliant and painful *concours*, in which Dupuytren had to contend against men of transcendant merit, thus placed at the head of French medicine and surgery. And never had the plan of election by *concours* a more eloquent advocate than our colleague. We all remember that in 1821, speaking in the name of the Faculty, in a solemn sitting he demanded, in a remarkable discourse, the re-establishment of this system, which had been suppressed for some years.

"The activity of Dupuytren as Surgeon of the Hotel Dieu and Professor at the Faculty, has never been impugned. The General Council will long remember the services he rendered to the poor in the first hospital of Paris, and if it has constantly appreciated in the highest degree the devotion of Dupuytren to the sick entrusted to his care, and the attention which he lavished upon them, it can with difficulty console itself now for the loss which, in common with us, it cannot fail to deplore. On the other hand, the Faculty of Medicine has never seen the duties of the Professorship filled more assiduously. Always, both in his lessons and acts, his judgment was developed in the advice which he gave, and in its immediate application to the healing art. Above all, in his lectures on clinical surgery, of which he had the management for eighteen years, he acquired a reputation which can with difficulty, if at all, be surpassed.

"Frequently obliged to discourse upon diseases which he had hardly had time to examine, he always astonished his hearers by his accuracy of diagnostic; and, when he was compelled from necessity to recur to the last resource of surgery, who better than he knew how to conform to the maxim of Celsus with the view of diminishing suffering, avoiding accidents, and ensuring the success of the operation? If it were necessary now to recite all the medico-chirurgical questions discussed and elucidated by Dupuytren in his lectures, I should have but to trace out a table of the matters of which science is composed. I would above all recal to your recollection the instruments and operating processes which he either invented or brought to perfection. Can any one forget the lectures original and rich in facts, on the arterial compressor, on venous hæmorrhage, on consecutive hæmorrhage in wounds, on the pathological anatomy of the fistulous passages, on lachrymal fistula, on the diagnostic of certain compound tumors of the scrotum, on complicated hydrocele of fibrous and cartilaginous degenerescence, on nasal polypus, on strangulated hernia, on the displacement of the mucous membrane of the rectum, on the artificial anus, on the operation for cataract, lithotomy, excision of the elbow-joint, and a new proceeding by which the ulnar nerve is preserved, on resections in ununited fractures or those which were badly united, on fractures of the fibula and the apparatus invented for their treatment, on the congenital luxation of the femur, on wounds of arteries complicating fractures, on retraction of the fingers, on the spleen, on the lingual nerves, on the motions of the brain, on the influence of the eight pair of nerves in respiration, &c.

"It was not enough for Dupuytren to have given during his life proofs of his unalterable attachment to the Faculty and its pupils; he wished to be remembered by a last testimony of the interest he felt for it; and his last legacy will, while perpetuating his benefaction, make the memory of the benefactor imperishable. The generous disposition will

be remembered with gratitude, which has given to one body of instruction a chair of pathological anatomy.

"It belonged to a distinguished and learned individual, who, by his researches, has so largely contributed to naturalize and propagate this science in France, to write a systematic course of instruction so long sought for by all lovers of science; known to the citizen who made so worthy, so noble a use of a fortune, which he owed to himself alone.

"Yes, dear colleague, your wish shall soon be fulfilled; your name shall be a thousand times proclaimed, a thousand times blessed from that chair, around which your powerful voice attracted the numerous auditory, which to-day, silent and in mourning, surround your bier. Future generations, like us, full of boundless gratitude, will lament your premature loss.—Adieu!"

After this discourse M. Larrey addressed the crowd in the name of the Academy of Sciences, and M. Parriset, in that of the Academy of Medicine. M. Bouillaud also paid the tribute of his eulogy to the illustrious dead, and M. Royer Collard, in the name of the former pupils of the Hotel Dieu, spoke in the same tone and spirit.

The last who addressed the auditory was M. Tessier, a pupil at the Hotel Dieu, as follows:—

"Drawn together by grief and gratitude, let us give a tear to him who was our glorious master. In his ardor to instruct he sacrificed his life for the advantage of his pupils; and we who, from the last link of this long chain, have beheld him exhaust all the resources of wearied nature, and thus vanquished by suffering and disease leave with regret the scene of his labors. Another would have sought repose and health beneath the fine heaven of Italy; there he derived only new lights, which he hastened to communicate to us.

"Yet the sacrifice of his whole life was not enough; he wished to strengthen the ties which bound us to him; he has portioned science as he would an inheritance to his children.

"May his cherished and venerated memory be transmitted to generations to revere; may our gratitude be as enduring as our regret! Let him but live in our hearts, and our hearts cannot fail to find their noblest inspirations in the recollection of a life such as his."

M. Dupuytren lies buried not far from General Foy, a little to the left, between some tombs as yet without any inscription.—*London Medical Gazette.*

From the London Medical and Surgical Journal.

PROFESSOR GRAVES ON PARALYSIS AGITANS.

Let me now refer you briefly to the case of Catherine M'Donnel. This girl is laboring under an attack of chorea of considerable standing, and is at present about fourteen years of age. I mention this because it is not improbable that the appearance of the catamenia, which frequently come on about this period, may have some influence on the future progress of her complaint. She states that her disease commenced about seven years ago, and that ever since she has been subject to its attacks at various times. Her health is somewhat impared but not however, to such a degree as to prevent her from following her usual avocations. Her present attack commenced about three weeks ago.

It is unnecessary for me to enter into any description of the convulsive motions of the limbs and other symptoms which characterize chorea; neither is it my intention to enter into the general history of the disease; you will find an admirable account of its symptoms, pathology, and treatment, in Copland's dictionary. I shall merely remark, with reference to this case that there is no headach, and an accurate examination has failed in detecting

any symptoms of determination to the head. Neither have we derangement of muscular motion during sleep; the girl's sleep is tranquil and regular. There is no evidence of gastric derangement present. She relishes her food, and, what is rather singular, her appetite is better during the attacks than during the intervals. Her tongue is clean and moist, but her bowels are inclined to constipation. It is of importance to bear in mind here, that her symptoms do not appear to have any connection with cerebral or gastric derangement. She has no headach, flushing of the face, noise in the ears, or thobbing of the temporal arteries, and there is nothing but constipation to show that the digestive organs are out of order. I dwell on these two circumstances particularly, because some persons have attributed chorea to cerebral irritation, and others to indigestion and gastric derangement exclusively. I am quite ready to grant that it may be produced occasionally by either of these two causes, and that the presence of either will tend to aggravate it, but am inclined to look on chorea as chiefly a nervous disease and to be cured chiefly by nervous medicines. Dr. Copland's remarks upon this question are excellent, and deserve to be attentively studied. For my own part I think that in this, as in many chronic diseases where indigestion exists, it is often a consequence, not a cause, and is produced by debility of the vital powers of the stomach and intestines, organs which are affected by causes acting on the whole organization. Thus a too rapid growth, premature or unnatural sexual indulgence, confinement, want of exercise, of rest, care and anxiety, &c., may each occasion a weak state of every organ of the body, including debility of the stomach. In a girl of this age, who labors under constipation, it is always proper to commence with the use of purgatives, and I have accordingly ordered her some pills composed of aloes and capsicum; but I would not persevere in the purgative plan longer than was necessary for removing constipation. What I mainly depend on for removing the disease is tonics, one of the best of which is the carbonate of iron in doses of half a drachm four times a day. There is at present a controversy between Dr. Billing and Dr. Johnson with respect to the doses of carbonate of iron to be employed in this disease, and it is asserted that in cases where doses of half a drachm three or four times a day will not succeed, a cure may be effected by giving three, four, or even five drachms frequently in the day. With regard to this subject, I must confess that I am for moderate doses, and I think in general as much good may be accomplished by half a drachm or a drachm, three or four times a day, as by much larger doses. I have accordingly ordered this girl to take half a drachm four times a day, and will persevere in the use of this remedy until we have given it a fair trial. The carbonate of iron tends in general rather to produce a relax than a constipated state of the bowels, and consequently is peculiarly well adapted to chronic cases of debility. The mistura ferri aromatica in moderate doses is another excellent formula. When we have to deal with constitutional weakness, which has arisen gradually, and continued long, we must trust more to the operation of general physical influences than to medicine, and, in graduating the doses of tonics, we must remember that it is imposible in such cases suddenly to strengthen; we must therefore rely upon the gradual operation of tonics, given for a long continuance and in moderate doses. This rule should never be lost sight of in the treatment of chronic diseases; important as it is, most practitioners seem little influenced by it, or perhaps they are altogether ignorant of it, otherwise we should not see them using concentrated and powerful tonics in such large and repeated doses in chorea. Another general rule as to the use of tonics in chronic diseases; usually you will be more successful with mild and diluted than with powerful and concentrated medicines. Thus, for example, cinchona in powder is often preferable to sulphate of quinine in chronic diseases.

There is a very curious case of paralysis agitans at present in the female chronic ward, which claims a few remarks. You must have all remarked the patient Ellen Davis, a young woman about twenty five years of age. She has a most peculiar expression of countenance, and as her disease is rather a rare one, I beg that any gentleman who has not seen it

will take the opportunity of paying her a visit. According to the account she gives of herself, the disease appears to have originated in a sudden and violent mental emotion. The poor girl, like most of the lower class of country people, happens to be a firm believer in the existence of ghosts and such like nonentities, and this superstition has formed the source or exciting cause of the disease in question. She was, unfortunately for herself, located in a very uncomfortable situation, her house being close to a road between two churchyards, a complete thoroughfare for ghosts, and where figures of a very questionable description had been frequently seen by many of her neighbors. Some of her acquaintances, who were aware of the frightful notions she entertained about personages of this kind, resolved to amuse themselves at her expense, and played off a practical joke of a very cruel nature. A churn-dash was procured, to which a sheet was appended so as to form no unapt representation of a sheeted headless corpse, and this was dandled between two trees by means of a rope. The poor girl, who happened to be going to bed at the time, was utterly appalled by the sight of what she conceived to be one of these ghosts sweeping though the air, and, immediately dropped down in a state of total insensibility. The fright deranged her nervous functions in an extraordinary degree, she became vertiginous, lost the use of her limbs on one side, and took to bed, from which she states she did not get up for three months.

The history of this case is of course extremely uncertain. In chronic cases, and among patients in her class of life, you can seldom expect to get an accurate or satisfactory account. It is quite clear that she had hemiplegia, but whether it arose from the fright or not we cannot exactly say. The symptoms of hemiplegia after some time began to decline, and she gradually regained the power of walking. This however, is but feeble, and though it is now seven years since the occurrence of the attack, the muscular power of the limbs is very slight. She had also, during the progress of her complaint, an attack of amaurosis which she says deprived her entirely of sight for nearly a year, and that after this period she recovered the use of one eye completely, but the other still remains amaurotic, and she can distinguish objects with it very imperfectly. At present she affords a very remarkable specimen,of paralysis agitans. She cannot walk slowly, and when she has commenced walking she cannot stop without considerable difficulty. The muscles of the extremities, face, and tongue, are very little under her control, and are in a state of almost perpetual motion. The muscles of the eyelids and eye balls are also similarly affected, and this gives to her countenance a strange and peculiar expression. You will find an excellent description of this disease in Dr. Elliotson's lectures; a very interesting case is also detailed in Dr. Wm. Stokes's lectures published in *Renshaw's London Medical and Surgical Journal.*

It would appear that in this disease the muscles are not by any means beyond the control of the will, but they are so influenced by the operation of some other unknown cause, that their motions are more or less imperfect and inadequate. She can walk quickly with tolerable ease, for in walking quickly the muscles are contracted more rapidly, and the will more strongly exercised, so that the obstacles to regular motion are in a great measure overcome, but when she walks slowly, time is given for the cause, which produces the anomalous motions, to come into play, a spasmodic state is established, and the muscles cease to obey the will so implicitly. I knew a gentleman who had a very curious form of this paralysis agitans. When about to walk, he was obliged to have himself balanced, and set off by some other person just like a piece of machinery. When once set a going, and on a smooth road he went on very well for a considerable time, but if interrupted by a hill, or by the unevenness of the ground he was compelled to run backwards in a right line until stopped by some one, and so little control of his motions had he at this time, that if a pond or precipice lay behind him he could not prevent himself from tumbling over it. I have occasionally

seen him under such circumstances, and the appearance he makes is singular and ludicrous. He goes backwards until he meets with a wall or some other object which resist his further progress. This is a very curious circumstance as connected with the nature of the disease.

I do not intend at present to enter into any inquiry respecting the nature and treatment of paralysis agitans. The prognosis of the disease appears to be *à priori*, unfavorable, from the total want of any exciting cause which might be discovered and removed. If the disease consisted in congestion of the head or spine, or if there was any apparent lesion by the removal of which we could hope to affect some good, we might entertain a more favorable opinion with respect to its termination, but it unfortunately happens that in too many cases we can do nothing more than observe the curious phenomena which it presents.

From the Medico-Chirurgical Review.

DETECTION OF THE MATTER OF MIASMATA IN THE AIR.

In a memoir lately read by M. Bousingault, at the Academy of Sciences, this most curious subject of meteorological inquiry is very ingeniously treated. It is well known that miasmata are almost always generated in places where dead vegetable matter is exposed to the conjoined influences of heat and of moisture, and hence, that they are of frequent and perhaps constant occurrence in warm marshy districts, especially if there be any admixture of fresh and salt waters, or if the ground has recently been turned up. The observations of all inquirers agree in representing the evening, soon after the setting of the sun, as the period at which the miasmatic influence is most actively pernicious, and in showing that the deleterious atmosphere rests chiefly in the valleys and low grounds while the more elevated positions are often quite exempt from its agency. Many years ago Moscate was led, by attending to these circumstances, to believe that perhaps the matter of miasmata might be discovered by collecting and condensing the dew, and submitting it to chemical analysis. His experiments were performed in the rice-grounds of Tuscany; and the results of these were, that the water so treated did very often exhibit flocculi, which had the properties of an animalised substance. Subsequently M. Delille announced that the water which he collected by condensation from the atmosphere in the marshes of Languedoc readily putrefied, and exhibited then flocculi of a highly azotised matter, which, on the addition of nitrate of silver, afforded a purple precipitate.

In 1819, M. Boussingault observed that sulphuric acid placed in the neighborhood of pools, in which hemp was steeping, quickly assumed a dark color, whereas at a greater distance from these foci of putrefaction, the change took place much more slowly. At the period of this observation, a pestilential fever was ravaging the district of Ain, where M. B. was residing; and he was hence led to conjecture that the two coincident phenomena might be owing to the operation of the same agent, and that this agent, from its blackening sulphuric acid, no doubt contained some carbonaceous matter.

When M. B. visited South America, he repeated these experiments in many places, which were notorious for their pestiferous miasms; but in these warm regions, the atmosphere so teems with insects, that the change in the color of the acid might be supposed to be owing, in part at least, to some of these having fallen into, and being charred by it. His apparatus, therefore, required some improvement, to guard against this objection, and he acquaints us that when he was residing at Carthagena, he adopted the following precautions:—

"Soon after sunset" says he, "I placed two watch-glasses on a table in the middle of a marshy plain: in one of these glasses I put a few drops of warm water, for the purpose of moistening its surface, and imparting to it a temperature somewhat above that of the atmosphere: the cold glass was speedily covered with dew, but almost none was

condensed on the other one. A drop of strong sulphuric acid was then added to both glasses, and when their contents were slowly evaporated to dryness by the heat of a lamp, it was invariably found that a trace of carbonaceous matter adhered to that glass in which the dew had been deposited, while none could be seen in the other. This mode of experimenting possessed the advantage of requiring but little time for its performance, and if any insect happened to fall in either glass, it could be at once removed with a needle.

By using two glasses, the objection that any particles of dust floating in the atmosphere might have been entangled in the fluids was guarded against; for if the carbonization depended upon this cause, it is evident that it must have effected both glasses equally.

The above-mentioned experiment was repeated by M. B. for several evenings, and uniformly the same results were obtained.

STATE OF MEDICAL SCIENCE.

Dissertation on the State of Medical Science, from the Termination of the Eighteenth Century to the present time. By W. Alison, M.D., F.R.S.E. (From the Cyclopædia of Practical Medicine. London, 1830.)

Medical science, since the close of the last century, has been cultivated with unexampled ardor, and has adequately progressed during the period which has thus elapsed. Many circumstances have greatly favored this gratifying advancement, though medicine has at the same time had to struggle with difficulties which ought not to have impeded so important a branch of knowledge at any instant of its history, especially in this latter portion of its career. Once, however, blessed with a perfect freedom of constitutional the governing medical institutions of all countries, and especially in our own,—abundantly supplied as the art is with enthusiastic followers, yet far more splendid results may be promised as the reward of its cultivation in another third of a century than we have witnessed even in the past third, some account of which we have here before us in an essay by Dr. Alison of Edinburgh.

This is the first attempt of the kind, on the same scale, which we have yet seen, though it seems strange that the varied products of so many researches in medicine should have lain dispersed so long over the field of inquiry, without exciting one successful attempt to collect the fragments together, and to raise the whole into a system. Perhaps, however, as Andral and several other eminent pathologists believe, it is impossible to co-ordinate all our present knowledge, to bring "bone to his bone" and to breathe life and durability into a comprehensive medical theory; indeed, past experience and the course of the more exact sciences seem to render this difficulty unquestionable, and to point out the more useful expedient of examining in distinct groups the history, and the real value of the doctrines which are now current. To this latter task, Dr. Alison has addressed himself, and has noticed nearly all the important truths which have derived their origin, or gained a firm footing amongst us, since the days of Cullen or of Hunter.

The present century derived its medical character from the close of the last,—represented in England by these two distinguished men; but Reil in Germany, and Bichat in France, exerted an influence equally powerful over their successors, who, it must be confessed, have been more industrious, and in many instances more fortunate, than ourselves, in proportion, perhaps, to the superior stimulus which was supplied to them by the scientific institutions of their respective countries.

Dr. Alison has, in general, done strict justice to the French writers, and has noticed their productions with candor; but on the part of the Germans there is cause to complain that he either has not known, or has not duly appreciated, several of the late researches and acquisitions made in their schools. This is the more to be regretted in a dissertation on the present state of medical science, as, since the Germans ceased to write in Latin or

French, their discoveries and opinions have, with the exception of a few exceedingly extravagant views, been slow in making their way before the English public; although the appearance of numerous late works entitles us to deny the applicability of Walther's quotation, "Et penitus toto divisos orbe Britannos."

In the first section of his work, Dr. ALISON discusses the modifications induced in CULLEN's theory of the primary moving powers, and spasm—explodes explanations founded on final causes, or the *vis naturæ medicatrix*,—examines the causes of *sudden* death, now attributed to a stoppage of the flow of arterial blood throughout the body,—reviews the discoveries that the different offices to which the nerves minister, depend on differences in their endowments,—and enumerates the important additions made to our knowledge of the blood, of muscular contraction, of the structure of the heart, of the causes of the venous circulation of the capillary circulation, and of the functions of nutrition, secretion, and excretion.

Of the various discoveries which have been made regarding the intimate structure of organized bodies, the mort important are :—

"The very general tendency of substances which are the result of vital action, to take the form of globules, or rather of cells, in which a containing cyst, and a contained matter are usually discernible; the total absence of crystaline arrangement in the living and growing parts of these textures; and the fact, that the particles of earthy and saline matters which enter into the composition of organized substances, however small their proportion to the whole, are never aggregated together, but are equally diffused through the whole mass, and retain their original form and dimensions even after the whole of the strictly animal or vegetable matter has been burnt out."

It is nearly established that "the different *excretions* already exist in the compound blood, and are only evolved, or separated, not formed from the blood, at those organs at which they respectively appear. This is certain as to the urine."

It may correct some errors still prevailing, to observe,—

"That although the set of vessels described for a century past by the name of absorbents are really destined to the office of absorption, and their structure, in various ways, is peculiarly adapted to it, yet it is not through them, nor through any one set of vessels exclusively, that the absorption of extra-vascular substances into the circulating mass is effected; that a function precisely similar is executed in many living beings, without any set of vessels being appropriated to it, and that the absorption of extra-vascular matters in the higher animals must be ascribed, therefore, in the last result, to peculiar relations subsisting in the living state between those matters and the circulating blood, rather than to the peculiar nature or forms of the vessels which are the organs of absorption; and, accordingly, that the degree of absorption is very much influenced by two circumstances in the condition of the circulation at the part where any such extraneous matters may lie—viz. by the fulness of the vessels, and by the rapidity of the current at that part; being always diminished when the vessels are much distended, and likewise when the flow along these vessels is much retarded or suspended, as by the removal of atmospheric pressure from any portion of the surface of the body."

"The peculiarities of the blood of the fœtus have also been examined; and the curious discoveries of Sir Astley Cooper and Dr. Lee of the formation of albuminous matter in the thymus gland and in the liver of the fœtus, have distinctly shown that here, as well as in the adult, there are contrivances adapted to the general object of assimilation, the particular intention of which is still mysterious."

The exclusive "solidism" so long taught to all her graduates by the Edinburgh schools, is fairly renounced as untenable :

"As we must take the fluids, and the changes proper to the fluids, into account in all

attempts at explanation of physiological phenomena, so we must be prepared to admit a *humoral pathology* as essential to the explanation of all the more important phenomena of disease; but this must be a pathology founded on observed changes, not simply of the mechanical or chemical condition, but of the strictly *vital properties* of the fluids, and especially of the blood."

Among the topics brought forward in the second chapter, are the influence of cold, impure air, and hunger, in predisposing to disease; the contagious nature of epidemics, and the laws of their propagation; the distinction now drawn between the different textures and parts of an organ inflamed, as instanced in the pleuræ, the bronchiæ, and the parenchyma of the lungs; the inflammation of the membranes of the brain, distinguished by its intensity, and the frequency of softening in that organ; the coincidence of a granulated state of the kidney, and an albuminous state of the urine; the occurrence of tubercle without inflammation; and the *specific* varieties of inflammation, erysipelatous, syphilitic, gouty, and rheumatic.

In the following passage, Dr. ALISON expresses an opinion, which is at variance with the general voice; but his judgment is founded on extensive experience; and so long as the value of medicine is not rigorously investigated, by comparing, counting, and stating *all* the necessary facts will deserve attention.

"It has often been represented, that not only the purgative mercurial medicines, as general evacuants, and as means of acting particularly on the secretion of the liver, are of peculiar importance, but the action of mercury on the system at large is the surest means of controling those effusions, and particularly the effusion of coagulable lymph, on which the danger of several inflammatory diseases essentially depends; and in some instances a less defined and more specific virtue in checking inflammation has been attributed to the constitutional affection from mercury. Thus the remedy has been successively vaunted in the case of acute *hydrocephalus*, of *cynanche trachealis* or *laryngea*, and (generally in the form of calomel and opium) in that of *pneumonia*, *bronchitis*, *pleuritis*, *pericarditis*, *peritonitis hepatitis*, and *dysentery*; and reference has been often made to the effect which may be observed from it in inflammation of the iris, tending to effusion of lymph there, as demonstrative evidence of its peculiar efficacy. But it may be stated with confidence, that in the opinion of many of the best informed members of the profession there has been much exaggeration in all these statements.

"It has been clearly shown, by Dr. ARMSTRONG and others, that when full bleeding has been premised, opium may be given freely and repeatedly, often with extremely good effect as to the relief of suffering, certainly without any injurious effect on the alvine evacuations (which seem frequently to be promoted or procured more easily by enemata after the use of opiates); and, it may be pretty confidently asserted, with a considerable diminution of the mortality below what is common when blood-letting and purgatives are the only remedies employed. In the cases which the present writer has observed, the beneficial effect of opium has been best marked when the pulse has been early much depressed, and has not risen after blood-letting, so that farther loss of blood has seemed hazardous or impracticable."

The task of balancing the claims of rival individuals, of dealing with modern doctrines and of accumulating facts which were scattered through innumerable volumes, has been sufficiently arduous, and has, for the most part, been accomplished by Dr. ALLISON with success, good judgment, and impartiality. We shall not discuss here all that appear to us to be faults in the dissertation; but it will be our duty to notice a few of the omissions, and we shall offer some objections to a doctrine which is sanctioned by the author, and held by that decreasing remnant of physiologists who deny that the ordinary laws of nature *can be appealed* to in explanation of the functions of organized bodies.

Magendie, although not the first, has been one of the most constant and powerful opposers of the exclusive system, and on every occasion he has most successfully exposed its imbecility. The multiplied discoveries set forth in the lectures of that professor which we have lately published, are so many triumphs of the rational system, which teaches us to compare the phenomena that occur in animated bodies, with each other, and with similar phenomena in the air, in the ocean, in the earth,—in all the masses of matter from which animals are formed, and into which their substance ultimately again resolves. The mechanism of locomotion; the circulation of the blood through tubes; the exhalation of aqueous vapor from the skin and lungs; the formation of carbonic acid and of heat, which is dissipated, when excessive, by evaporation; the penetration of membranes by gases and liquids,—could never have been understood apart from the "study of dead matter," and should constantly lead us to suspect that if "the applications of natural science to medicine are very partial," the fault really lies in our ignorance of chemical and physical, as well as of vital processes. Dr. Alison says, "Although some degree of acquaintance with other natural sciences is properly expected of a physician, yet it is chiefly as an exercise of the understanding, that the study of these sciences must be recommended." If it was meant to affirm that many vital conditions can be studied, and to a certain extent explained, without the possession of a knowledge of the sciences, or that close observation of the living body itself is essential to an acquaintance with its functions, investigation of no other kind being capable of superseding that study, the statement embodies a palpable truth, attention to which would have preserved the learned men of the last century from committing innumerable mistakes, and repeatedly misapplying their principles; but the two pages in which this notion is developed, obviously prove the design of enforcing the more dangerous and untenable opinion,—that an intimate acquaintance with natural philosophy and chemistry is by no means indispensable to the physician. It is hardly necessary, at this time of day, for us to point out that some of the first principles of physiology can only be explained by the laws of mechanics; that in practice, chemistry admits of almost as frequent application as anatomy; that the material elements in assuming organic forms do not lose their essential nature, whose modifications probably constitute all their new properties: and that our limited knowledge of physiology, morbid conditions, and the action of remedies, does not entitle us to disdain any one of the aids which are to be derived from natural science. On the septuagenarian professor or practitioner it were useless to urge the utility of studies which would now be to him not only painful but impossible; they may be dispensed with among the few who can rely for a knowledge of disease on the possession of much collegiate morality and considerable stores of Latin and Greek, but the young men of science who must soon form the bulk of those regenerated institutions which will take the place of ancient and imbecile medical corporations, cannot for their future fame afford to listen to dicta which accord so well with the habits of natural indolence.

"Vitanda est improba Siren
Desidia."

The application of the instruments and principles of natural science to the investigation of living matter, promised to be the richest mine of future discovery; for the probability, *a priori*, is as Meckel before his death prophetically announced, that the forces which actuate the organism will be found to govern the universe. If the tree be known by its fruits, it may be curious to inquire what has been done for science by the exclusive vitalists, who treat as sacrilege all meddling with the principle of life? Turn over the motonous pages of Adelon, the eloquent but unscientific work Richerand, whose long heresy is scarcely expiated by his late recantation, or glance for a moment at the uncertain experiments and inconclusive reasonings Wilson Philip, *et hoc genus omne*, and then

examine the labors of PROUT, BOSTOCK, THOMSON, ALLEN, and PEPYS, of MAGENDIE, BLAINVILLE, CUVIER, and RASPAIL; of BERZELIUS, TREVIRANUS, TIEDEMANN, GMELIN, and the German naturalists,—inspired by the spirit of exact science, and rich in substantial contributions to medicine,—a cloud of witnesses sufficient to convince dispassionate observers that no permanent advancement can be made in physiology, excepting by those who are thoroughly grounded in the principles of general science. It is an incontrovertible fact, that all who have latterly made solid additions to our practical knowledge of disease* are well versed in the natural sciences. Indeed the great physicians of every age have been familiar with the physical knowledge of their time.

The Phrenologists are attended to, but GALL and SPURZHEIM are never mentioned in this dissertation. Whatever opinions may be held with regard to the certainty of their discoveries, the historian who could pass unnoticed the authors of the "Anatomie et Physiologie du Système Nerveux," must be strangely blinded by local associations, prejudice, or want of philosophic discrimination. Experiment, and the facts of morbid anatomy, scarcely justify the confidence with which the functions of the parts at the base of the brain are specified; or the mention which is made of some of the experimenters. The tame and uninspired speculations of the Scotch metaphysicians, honorably distinguished by the author, are now never read; the thread of their fate has long since been cut asunder; and they (we except SMITH and BROWN) ought now only to be found in a metaphysical obituary.

Among the omissions which most detract from the value of Dr. ALISON's work, are a clear account of late discoveries regarding climate, and the philosophical precision which has been given to the employment of hygienic means as therapeutic agents, by Dr. CLARK; Dr. ELLIOTSON's interesting researches into the properties of medicines; LOUIS's rigorous application of figures (*methode numerique*) to pathological facts, usually generalized by guessing instead of counting; the extended views, new facts, and eloquent exposition of comparative anatomy, by Dr. GRANT: KIERNAN's discoveries in the liver; and Dr. HODGKIN's industrious inquiries in pathological anatomy: some not unimportant discoveries in the blood. Dr. CARSWELL's splendid collection of drawings, at the London University, with his writings, promises to place us on the eminence we had attained in this department by the works of BAILLIE.

At another time we shall perhaps notice these, and the labors of some other distinguished men, who appear to have been forgotten. Dwelling on what certainly are imperfections in Dr. ALISON's dissertation, it is just to say that there are parts of it which will be read with great pleasure. Few men of his class would have written contemporary history with more fairness, have exhibited prejudice on so few subjects, or have brought together so much general information in so useful a form. With the article of Dr. BOSTOCK on the "Ancient History of Medicine," it terminates the "Cyclopædia of Practical Medicine," of which we here take the opportunity of saying, that it exhibits in many of its articles, not only a full digest of all the facts before known but many important additions to medical science.—*Lancet.*

ABSTRACT OF AN ESSAY ON THE USE OF SEDATIVES IN MANIA MELANCHOLICA.

BY J. HORNE, ESQ., M.R.C.S.

Read before the Royal Medical and Chirurgical Society, Jan. 13th, 1835.

Mr. President.—After this subject has been so ably introduced to the Society by Dr. Seymour, I feel that so young a member of the profession as myself may be considered

* This is illustrated by various articles in the "Cyclopedia.

presumptuous in renewing it. A consciousness of the immense benefit resulting from the plan of treatment, proposed by Dr. Seymour, is my apology, and I trust I have some claims to speak of its merits, having adopted it in preference to all others since 1830, and since which period a very considerable number of cases have fallen under my observation. The form of sedative, selected by the Doctor, is the pure acetate of morphia; I have chosen one which contains a very large proportion of the acetate of morphia in solution, and which I propose calling the acetum opii sedativum, as it will be found to be the same as, or at least very similar to, Mr. Batley's liquor opii sedativus, a remedy too well known to require description, except in regard to its mode of preparation, which the proprietor, in spite of the honor of ranking as a scientific chemist, has hitherto kept a profound secret.

Medical men are frequently consulted in cases of mania melancholica, arising from grief, vexation, or disappointment in love, and the dearer the object the deeper is the impression, the more difficult is it to be overcome. Mania not unfrequently sets in after females have undergone considerable fatigue, or kept late hours at balls, or have suffered from cold and fatigue combined, during menstruation. During this predisposing condition of the system fever ensues, and rapidly increases; the brain becomes affected, the secretions are arrested, hour after hour passes away without any rest. The mind, which at first only wandered, is now entirely lost. At this stage of the complaint the ceremony of taking leave of the friends, of dying, and of being buried is performed over and over again, or the constant fear of being murdered, or placed in solitary confinement in a madhouse constantly haunts them. All past actions appear to have been one continued scene of wickedness, from the commission of which, it will be utterly impossible to escape everlasting punishment or to make atonement.

The high degree of nervous irritation, producing these maniacal symptoms, has been combatted by the profession with narcotic remedies; but, upon the whole, our medical writers consider that little reliance can be placed upon them. Experience, sanctioned by so great an authority as Dr. Seymour, will not allow me to attribute this want of success to the narcotic, but rather to the manner in which it is prescribed, due attention not being paid to these agents possessing two distinct properties, like the preparations of digitalis, that is to say, first stimulant then sedative, so that unless the dose of the latter be sufficiently large to counteract, or overcome the former property, that only will come into action and this class of remedies would of course increase rather than mitigate the nervous irritability under which the system labors.

Case I.—In the early part of Februray, 1831, I was requested to visit a lady, aged 18 years, laboring under this affection in its severest form. She had a wild and suspicious look, her eyes almost starting out of their sockets; she complained of the slightest noise; there was also pain in the head, with very dilated pupils, and indistinct vision; the tongue dry and coated; lips black; skin parched; pulse 135, small and weak, and respiration hurried. Insomnolency was a prominent symptom. She had been confined to her bed for ten days, and had taken a great dislike to all her attendants, deplored her unhappy condition, and dreaded the punishment that would be inflicted for her past supposed sins. Her friends were all in the greatest state of despondency, having given up all hope of recovery; two eminent physicians, who had been previously consulted, not having formed a favorable prognosis. I abstracted eight ounces of blood from the arm, and gave immediately thirty minims of the acetum opii sedativum applied cold to the head, and supported the system by weak broths. The blood drawn exhibited slight inflammatory traces; the acetum opii sedativum was repeated throughout the first, second, and third days at intervals of every three, four, and six hours, with well-marked benefit, and the pulse was kept down by digitalis. Three days and two nights passed by before sound quiet sleep

could be obtained, and for the space of nearly two months the opiate was repeated at bed time, and also during the day, whenever the wandering, or melancholic mood, was on the increase, in varying doses from ten to twenty minims. The lady is now perfectly recovered.

A few weeks after a second case, presenting precisely the same symptoms, excepting the condition of the circulation, which was more excited, owing to this patient being more robust in constitution and habit than the former. Here the sedative proved most beneficial. At the commencement digitalis, with powerful diuretics, were employed to reduce the system, aided by occasional purgatives.

In chronic cases the same satisfactory results may be depended upon from the sedative plan of treatment; and in further proofs of its efficacy, I may add the case of an elderly lady, nearly 50 years of age, who became melancholic from reading religious tracts. I was consulted; and though well aware of the difficulty of successfully combating this form of melancholia, when arising from religious fanaticism, more especially as she had poverty to contend with, and but few friends to assist her, I considered it would prove a most favorable case for testing the efficacy of the treatment. Neither trouble nor expense on my part was spared, and my efforts were crowned with success, for my patient completely recovered, and in time became capable of following her religious inclinations with perfect safety. The dose of the sedative was twenty minims night and morning, gradually reduced to ten. The cure of this case stamped the efficacy of the treatment most completely on my own mind.

Other cases might be narrated, but as I am fearful of trespassing too much on the valuable time of the Society, I shall only relate one, belonging to the class of puerperal mania, which occured in July and August, 1834.

I was requested to attend a poor girl, about sixteen years and a half old, whom I found in strong labor-pains. Parturition took place without much difficulty, and the child was strong and healthy. Up to the fourth day the patient was doing well; at 11 P. M. of the same day I was sent for by her friends, who were respectable, who reported that their daughter, towards the evening, began to talk excessively, and very strangely, quickly wandering from one subject to another; had attempted several times to get out of bed, but on being prevented at first quietly lay down by degrees, but she never ceased talking, and reasoning, had no effect on her. On my arrival, I found two persons were required to keep her in bed; her exclamations were dreadful, and the manner in which she described the dispised and degraded condition to which she had become reduced, and the helpless state of her child, will not be readily forgotten by me. The excitement had quickly developed high febrile symptoms; the pulse was 140 (rather more than less); the skin and fauces dry and parched; the head and the surface of the whole body were hot; the breast distended with milk; the bowels had been relieved in the early part of the day.

This sudden change, I ascertained, had arisen from her parents' having inadvertently declared their incapability of keeping her and her child, and the only comfort they held out was the workhouse or starvation. I directed a wine-glassful, to be given every two hours, of a mixture containing half an ounce of laudanum and ten ounces of water; the breasts to be drawn; lemonade drink during the night.

2nd. Symptoms increased; no sleep; the laudanum to be continued.

3rd. Worse; pulse sinking; bowels much relaxed.

Capiat tinct. opii ʒj. statim, et cochlearia larga duo 4tâ horâ misturæ sequentis.

℞. Tinct. opii ʒij., aquæ ℥vi.—fiat mist.

4th. More composed; has enjoyed some sound sleep; to be supported by nourishing *broths and milk*; the opiate to be continued.

6th. Melancholia; expresses an ardent wish to die: pulse 70 and small; bowels confined.

Capiat pulv. jalapæ c. ℈ij. statim.

Habeat mist. opii ut antea.

8th. Better; sleeps more composedly.

10th. Rapidly improving.—Continue the opiate.

13th. Convalescent; regained strength slowly, but her health has continued good up to the present time. The lochia were encouraged by warm fomentations, and were consequently unchecked; the milk returned in part as the mania decreased. In this case laudanum was given, because it contains spirit; considering it would prove beneficial rather than injurious on that account, on the ground that this class of patients are accustomed to spirituous stimuli, and its total deprivation not unfrequently retards the cure very considerably.

When insanity first developes itself in young persons, it is almost invariably accompanied, as in case the first, with well-marked symptoms of cerebral inflammation, and not unfrequently no inconsiderable tact will be required to arrive at a correct diagnosis. However, by attentively ascertaining the previous state and habits of the patient, and, if possible, the propensities, the true diagnosis may be formed, which it is of the greatest consequence to establish as early as possible.

Dr. Seymour, in his valuable paper, proposed to trust almost entirely to the sedative plan. My experience, small as it may be, compared to that of Dr. S., and with all due deference to the exalted rank he holds in the profession, enables me, with perfect confidence as to the result, to make it my sheet-anchor; but it also justifies me in adding, that there are two conditions of the circulation, a previous attention to which gives the narcotics an advantage and a power over melancholic insanity and puerperal mania, that no other class of remedies possesses. The first condition of the circulation to which I allude, is where we find, as in case the first, the action of the heart excessively quick, but the pulse weak, and in proportion to the time the circulation has continued unchecked, the greater is the weakness to which the patient is apparently reduced; the circulation, to use a common but appropriate simile, has the upper hand, by bleeding we relieve, consequently diminish the exhaustion, for the pulse falls, but becomes fuller, softer, and more dilated, the most satisfactory proof that the oppression had been in part removed. The second condition of the circulation alluded to is that where the whole vascular system, from repeated indulgences and various excesses, too common and distressing to describe, especially when young, has reached its maximum of distension or dilatation. Under these circumstances, the necessity of reducing the powers of the system must be too evident to require demonstration.—*London Med. and Surg. Journal.*

OBSERVATIONS ON THE CURATIVE PROPERTIES OF HYDRIODATE OF POTASS,

In Periostitis and Chronic Articular Rheumatism.

BY JOHN CLENDINNING, M.D.

Physician to the St. Marylebone Infirmary, and to the Western Dispensary, Westminster, &c.

My friend Dr. Holroyd has furnished me with the subjoined particulars of a case, in which, at my suggestion, he employed the hydriodate. It was a case of chronic articular rheumatism, treated by Dr. H. as a patient of the Marylebone Dispensary.

Case IX.—J. D. ætat. 30, married, and never affected with venereal disease, admitted 25th September, 1834. He had been subject to rheumatism for fifteen years, and for the last eighteen months has been unable to work, or to walk without a stick. He

had been in St. George's Hospital, and had there and elsewhere taken much medicine without advantage. The only part painful at his admission was the right knee, which for twelve months had caused him so much distress, that he had latterly used opium at night, to the extent of fifteen grains at a dose, merely for ease from pain. On the 30th no better, when the hydriodate, in doses of four grains thrice daily, was substituted for his former medicines. In forty-eight hours improvement was perceptible; slept for several hours the second night of the iodic treatment without opium. In ten days the pain of the knee was entirely removed, and he slept the whole night; he then continued for a few days and left off gradually.

Case X.—Rebecca Fuller, æt. 30, admitted in the St. Marylebone Infirmary, under my care, January 22d. She had been ill of chronic rheumatism for the last year, and when admitted, had painful swellings of the ankles, at the roots of the fingers, and in the palms of the hands; also a periostitis, extending over the olecranon and upon the body of the ulna of one arm. In the right arm, also, both external pressure and contraction of the muscles caused pain, which appeared to originate in the intermuscular fasciæ and tendinous attachments of the muscles. She was pale and flabby, with feeble pulse and cool skin. I ordered

Ammoniated Tinct. of Guaiacum, ʒss. in ʒiss. of the Mist. Cinchon. Aromat. of our hospital Pharmacopœia, thrice daily.

Next day she had an attack of inflammation in the right iliac region, which was relieved by leeches and fomentations.

On the 24th a warm bath was tried, with seemingly bad effect, as she complained of increased rheumatic pains next visit.

On the 25th, a purgative, and Dover's powders at night.

27th.—No better. Ordered

15 drops Vin. Conchici in ʒiss Mist. Cinchon. Aromat. (Phar. nos.) ter quotidie.

Feb. 3d.—No improvement.

The mixture as last ordered, with the Hydriodate of Potass, gr. iij instead of Vin. Colchici, quarter quotidie.

5th.—Better; complains of purging.

The Decoct. Sarsæ. Comp. to be combined with the hydriodate, instead of the Cinchona mixture, and 5 drops of Laudanum to each dose.

14th.—The medicine has answerd every purpose; the tenderness of the olecranon, and swellings, and soreness of palms and ankles, have disappeared.

Omit the medicines.

19th.—Some slight return of pain, for which the iodic mixture was again employed; and she was quickly in a state to be removed to the convalescent ward. While using the hydriodate, her diet was full and generous—viz. roast meat, porter, &c.

Case XI.—Ellen Putnam, ætat. 52, admitted into the St. Marylebone Infirmary, under my care, December 31, 1834. During the month of January, various remedies were employed—viz. colchicum, antimony, bark, opium in various combinations, but with little advantage. The symptoms principally complained of were tender swellings of the ankles, knees, and shins; on the right tibia there was a considerable node; she had severe osteocopi, and thence sleepless nights. She had been rheumatic for two years past, particularly about the greater articulations of the upper and lower extremities.

Jan. 30th, I substituted for her former medicines the hydriodate of potass in Mist. Cinchon. aromat. (Pharm. Nos.) 5 grains thrice daily; and I ordererd ½ grain of mur. morphia every night.

On the 31st I doubled the dose of morphia and continued the mixture; and this plan was *persevered in* until the 7th of February, when the node was quite gone, as well as all the

painfulness, and most of the bulk of the swellings of the joints. I then suspended the medicines, but too soon, for on the 14th there was some return of articular pain and swelling, and I was obliged to prescribe again. I then directed the pil. veratriæ (Pharm. Nos.) which I had found useful in several instances not unlike the present, to be taken thrice daily.

On the 19th there was some slight amendment, and the veratria was continued and persevered in until the 2d March, when she still complained of pain of the right knee and ankle, which were swelled and tender. I then ordered for her the hydriodate of potass in mucilage, *5* grains every six hours.

On the 6th the swelling and tenderness of the knee and ankle, were considerably diminished; she walked about the ward with much greater ease also.

March 9th.—To-day the iodic mixture continued, with morph. muriat. She is still better, and will, I have no doubt, be very soon discharged convalescent.

March 12th.—Discharged to-day.

Case XII.—Sarah Wood, ætat. 50, admitted into the casual ward, under my care, February 20, 1835. Seven years since, had what she called rheumatic gout, which obliged her to enter the Westminster Hospital, where she remained three months; left it still unwell, and has not since been free from gouty or rheumatic affections of the lower extremities. Her principal present ailment is painful swelling of the knees, incapacitating her wholly for labor during the last three months. Her general health excellent.

Feb 21st.—I ordered the hydriodate of potass, 3 grains four times daily, in mucilage.

24th.—Improving rapidly; walks much better already.—Perstet.

27th.—Says she walks much better than at any time for seven years past; swelling of knees still considerable, with some tenderness on pressure; swelling of ankles quite gone.

March 6th.—Has persevered in the iodic medication since last report without inconvenience of any kind, and with great improvement to the use of the lower limbs; she "steps out" better (to use her own phrase), than at any time since the commencement of her treatment; has observed, great improvement in her feelings in and power over her limbs, especially within the last three days. She is in the convalescent ward, and will I expect be discharged in a few days.

Case XIII.—In October last I was visited in my bed-room, to which I happened to be confined, by a gentleman of 27 or 28. He was in perfect health, with the exception of a gouty swelling of the joint at the root of the great toe of the right foot, I think, which had incommoded him for more than half a year, and had proved obstinate and unyielding to every remedy he had employed. Having heard of Mr. M's case and the result, he applied to me. I had no previous experience of the effects of iodine in gout but on mature deliberation considered myself warranted in trying the hydriodate in the case. I accordingly ordered him 20 drops of a solution (containing 1 drachm of the salt to the ounce of water), thrice a day, and warned him against taking the medicine fasting. He revisited me a week after, and told me that he was then for the first time for six months able to wear his boot. In another week he called again, and announced that he was quite free from pain and swelling, and in perfect health.

I have at the present moment under observation in the St. Marylebone Parochial Hospital, and at the Western Dispensary, three or four other cases of chronic articular rheumatism, which I am satisfied, from what I have already seen of them, will soon speak as unequivocally and strongly in favor of the iodic treatment as those above detailed.

Observations.—The employment of iodine as an antiphlogistic is of recent origin; so far as I know, Dr. Williams, of St. Thomas's, is the first that became acquainted with its curative power in certain forms of inflammation. I have not myself, in my limited

reading, (Dr. Williams's paper excepted) met with any notice of iodine in this character. I do not consider as exceptions certain works on scrofula and syphilis, particularly the latter, of which I have at this moment one before me, by Dr. Richond, entitled, "De la non-existence du virus venerien," &c. Paris, 1826; a work with the use of which Dr. Williams has kindly favored me In none of the works I allude to, is what I would call the antiphlogistic property of iodine acknowledged or denied; to none of the authors does it seem to have been known. In Dr. Richond's work the remedy is spoken of, not as an antiphlogistic, but as a discutient; not under the head of periostitis, but as a means of effecting the dispersion of a phymotic swelling of the prepuce and of buboes, after their passage into the indolent state, often succeeding acute inflammation. Its use also was external, by the friction and not by mouth. I have already mentioned that Dr. Williams seems to limit its utility to periostitis, but in extending its use to the chronic inflammations and irritations of the ligaments and tendons, which seem the essential elements in general of inveterate articular rheumatism, I have been guided by palpable analogies, anatomical and physiological. In one instance only I have tried it in chronic gout and in that case (viz. Case XIII.) it seems to have produced affects as satisfactory as could reasonably be desired.

For the inflammations of the nutrient membranes, and possibly of the substance also of the hard parts, iodine, in the form of alkaline hydriodate, seems to possess many advantages over most remedies in common use, in the disease in which such inflammations occur. One advantage is, that its use involves no restrictions of diet or regimen: so far as I have been able to judge, a full and even generous diet, and self-indulgent habits, offer no impediments to the action of the remedy. A liberal use of animal food, in particular, I think rather favors its action than impedes, where there is no pyrexia, owing to its enabling the stomach the better to bear the stimulating, and often at first the irritating, qualities of the salt. 2. Its use occasions no susceptibility of cold, like warm-baths, or diaphoretics, or mercury. 3. It does not necessarily debilitate, like bleeding or other evacuations. 4. It harmonizes, chemically and medicinally, with almost every sort of substance it may be desirable to combine it with. It is compatible with bitters, astringents, opiates, antacids, aperients, and diffusible stimulants, as I myself experienced; and the experiments of Dr. Thompson and others prove its medicinal compatibility with chalybeates and mercurials. With regard, likewise, to the mode of using iodine, I may shortly notice the advantages of the internal use of the neutral salt. 1. It requires no handling, pressure, &c. of the tender part. 2. The whole dose is absorbed if but swallowed, and no labor or care is required to secure its due appropriation, in which it contrasts very advantageously with the endermic method. 3. It is infinitely more manageable in internal use than pure iodine; the internal use also is preferable to the external in most cases; first, it does not disturb the inflamed part; secondly, under the eye of proper attendants, its absorption is rapid and sure; thirdly it is not troublesome, like friction.

The inconveniences are few and unimportant: the principle are heartburn, flatulence, nausea, and diarrhœa; and sometimes vomiting, colicky pains, and such like. But these symptoms are generally suffered only at the commencement of its use, and are easily prevented or subdued. By dilution—by taking it in a mucilaginous fluid, or in a bitter decoction, such as that of gentian—by taking it on a full stomach, or just after meals, and at no other times—by beginning with a small dose of two or three grains, and increasing gradually—by the use of antacids and aromatics when cardialgia is troublesome—by the prompt employment of chalk mixture and laudanum to check intestinal pains and diarrhœa—I have generally been able, after the first few days, if not from the beginning, to use liberal doses of the salt, and quickly to bring the constitution and disease under the influence of iodine; and when other indications than those which iodine alone might be expected to fulfil have

called for attention, I have found no difficulty in bringing it to co-operate with various remedies of different and even opposite characters, without its either offering or suffering impediment.

When first used, the hydriodate of potass sometimes causes pains and other inconveniences in the head, chest, and other parts remote from the stomach. Headache and vertigo are often amongst its first fruits; especially in nervous women, in whom it likewise excites the globus and other troublesome hysterical symptoms. In fact, from a consideration of the influence and sympathies alone of the stomach, we might *à priori* infer, that, as a powerful agent, it would be likely to give rise, in untried and susceptible subjects, to anomalous and unexpected symptoms. But such effects are of little importance, and easily mastered.

I have never observed any wasting of the mammæ or testes, or of any other part of the body, in the patients I have subjected most fully to its influence; but have repeatedly remarked their improved looks and general appearance. Those of my patients who took most, as the second case in this paper (that of a young woman who took about 100 grains a-day for weeks together), suffered as little change of condition as those others that took but ten or twelve grains in twenty-four hours.

In a few instances it has produced acute ptyalism. The sixth case I have detailed in this paper (that of Mr. M.), was a striking instance of its occasional salivating power; that gentleman had not used it many days when his gums got sore and teeth loose, and severe ptyalism supervened, and continued for ten days or a fortnight. I have at this present moment under treatment, in hospital, a female patient, to whom I have exhibited the iodic salt, for periostitis of the occipital bone, and with considerable apparent advantage, but with effects on her gums, teeth, breath, &c. similar to those of mercury.

In this property, iodine seems to agree with digitalis and some other active substances which, on rare occasions, have been known to produce like effects.

Its only sensible effects, which I should be disposed to call its regular effects, are increase of urine and of intestinal evacuations. The diuresis is not often enduring. After some days, or a week or two, the patients are not sensible of any thing unusual with respect to the quantity of evacuation. In the quality I have not myself observed any other change than a great increase, in several instances, in the proportion of lateritious deposit. In the urine of patients that drink but little, there may be expected, according to my observations, an unusual quantity of uric acid. With respect to the presence or absence of iodine in the urine, I have made no experiments as yet, and therefore cannot myself speak; but I am informed that there is little difficulty in detecting it, especially by means of oxymuriate of mercury.

With respect to the bowels, I have rarely found it fail to prove aperient in one degree or other. I have at this moment, in the Marylebone Infirmary, a female long afflicted with articular chronic rheumatism, whose stomach and bowels at first proved so intolerant, as to lead me to abandon it for veratria, but who can now take five or six grains in chalk mixture, with five drops of laudanum, four times a day, without any inconvenient effect whatever. Her bowels are properly active, and yet she takes twenty drops of laudanum during the day, and gr. iss. of mur. morphiæ every night.

In the majority of cases, I have after the first few days found it to stimulate the bowels no farther than to cause free evacuation once, or more frequently twice, a day.

J. Clendinning.

Wimpole-Street, March 9, 1835.

CHOREA.

Reports of Cases in the Manchester Royal Infirmary.

Case 1.—Grace Plant, æt. 24, married, admitted June 22d, 1833.

She first perceived involuntary motions in her limbs about a month ago. She had the sense of a ball, rising up in her throat, which she attributed to wind. Bowels obstinately costive. Pain in the head. Appetite bad. Tongue clean and moist. Has not perceived her catamenia except twice, and then scanty, since her marriage, a period of six years. Has had three children, the youngest is sixteen months old. Since she weaned her child, a fortnight ago, she has felt considerably better. She has lately labored under much mental anxiety. She says the first symptoms of her affection were brought on by too much thinking, or, as she terms it, too much study. Pulse slow, and rather feeble. Her nose, for the last few days, has slightly bled. Has no pain anywhere except the headache. Has slight lepra on her legs.

To take five grains of the Pilula Aloës cum Myrrhâ, every hour whilst waking.

23d. Bowels copiously moved, Tongue clean. Appetite good. Cannot sleep. Complains that the rising of wind is very troublesome. No diminution in the involuntary motion of her limbs.

In addition to the pills, to take the warm bath every night.

25th. Perspires much after the warm bath, which she thinks does her good. Leprous affection of her legs much improved. Convulsions less violent. Bowels much purged.

The twitchings now diminished, but on the 28th, she had been much troubled with globus hystericus, and had such pain in the head, that eight leeches were applied to the temples. After this she progressively improved, and on the 15th of July was discharged cured.

Case 2.—James Lowe, æt. 12, admitted July 1, 1833.

Works in a cotton-factory. Has been ill six months. The convulsions are very strong: he is entirely speechless from the difficulty of articulating; he has much stupor. Bowels are costive. Tongue is foul. He has pain in the head.

To take a pill of five grains of the pilula Aloës cum Myrrhâ every hour whilst waking.

2d. Bowels unmoved.

3rd. Has had very copious motions; the stools consist of an immense quantity of feculent matter of all colors. He is rather improved.

The convulsions diminished further, and the motions grew more natural. On the 17th, he was ordered to take the shower bath every morning, and to persevere with the pills. Some amendments ensued, but, on the 24th, he complained of head-ache.

To omit the bath and the pills—to take Pilula Zinci Sulphatis, gr. j. ter die.

On the 1st of August, the twitchings were not gone.

℞. Liquoris Morphinæ Acetatis, ♏ vj. Misturæ Acidi, Sulphurici f ʒiij. Misce.

To take an ounce after each pill.

After this, he progressively improved; and on the 19th of August, was discharged cured.

The following judicious remarks of Dr. Carbot are deserving of insertion.

"In the case before us,* gentlemen, I have principally to remark, that, whereas it is laid down by Sydenham,† that St. Vitus's Dance attacks children of from ten to fourteen years of age, the present patient is twenty-four years of age, and what is more remarkable, she is a married woman and has had three children. The complication of

* The first case which we have noticed.—Eds.

† 'Schedula monitoria.' Sect. 19.

hysteria with chorea is not to be wondered at, as these two diseases have a considerable resemblance to each other in many particulars. The woman was also affected with lepra vulgaris, but it seems quite uncertain whether or not it was the partial suppression of this leprous affection which gave rise to the two nervous affections.

With regard to the predisposing causes of chorea, they are said to be the feminine gender, the nervous temperament, hereditary liability, infancy, or at any rate, an age before that of puberty. Here, however, we have the curious fact of a married woman with children, she herself being twenty-four years of age, having the disease. The exciting causes of chorea *are said* to be great fright, a fit of anger, violent and repeated crosses, the presence of worms in the alimentary canal, difficulty or suppression of the menses, and suppressed cutaneous eruption.

With regard to the seat and nature of chorea, that is to say, its proximate cause, much has been said and written, with which I do not intend to trouble you; but I will lay before you my own ideas on the subject. The commencement of chorea I believe to be an irritation produced in the intestines either by the presence of accumulated feces, or by the presence of worms. This irritation is conveyed to the brain, and produces uneasiness there. The brain makes an instinctive effort to get rid of this uneasiness; but, having no power over the involuntary muscles of the intestines, it excites disorderly motions in the only muscles over which it has power, the voluntary. These disorderly motions, being once excited, soon become confirmed by habit, which, as you well know, has great power over the voluntary muscles. The disorderly motions of which I speak have been well designated by a French author, *la folie musculaire*, that is to say muscular madness. Now, the consequence of the confirmation of the habit of disorderly motions in the voluntary muscles, is that the motions do not immediately cease upon the removal of the cause which originally excited them, but sometimes continue for months, sometimes for years.

The remedies which have been recommended for chorea, may be reduced to four classes, blood-letting, purgatives, antispasmodics, and tonics. Blood-letting, purgatives, and opiates, that is to say antispasmodics, were employed by the celebrated Sydenham,* in a kind of alternate manner, which is quite unnecessary for me to describe particularly. Purgatives were employed with great success by Dr. Hamilton,† and I may add that I enjoyed the advantage of daily witnessing his practice in this and other diseases, in the Royal Infirmary of Edinburgh. Dr. Currie, whose practice I had the pleasure of witnessing at Guy's Hospital, was very partial to tonics, especially the sulphate of zinc, with which he certainly had great success. No one, I think, has employed antispasmodics alone.

Having tried all these plans, I should recommend you, if the patient be young and vigorous and especially if he or she have any fixed pain, to draw blood either from the arm, or by means of leeches applied to the part affected. I did so, that is, I applied leeches to the head in the case before you, which immediately removed the pain. I should then, with a view to remove the great accumulation from the intestines, administer one of the pilulæ aloës cum myrrhâ, every hour during waking. It is necessary to give them every hour in order to keep up completely the peristaltic action of the bowels; and you will be completely astonished, if you inspect the feces every day, which you certainly ought to do, to witness the appearance of them. In the first place the quantity of them will surprise you; in the second place, the great variety of colors will a little amaze you. You will see part of them black, part brown, deep yellow, green, clay-colored. When you have continued the purging until the feces are of a uniform and natural color, and you will be surprised to find how well the patients bear this purging, you may then omit

* 'Schedula monitoria.' Sect. 20.

† Hamilton, on Purgative Medicines.

the purgative pills, and give a tonic pill of one or two grains of sulphate of zinc, three or four times a day; with a sulphuric acid mixture, containing a proper and regular dose of the acetate of morphine. You may also, at any period of the treatment, employ the shower bath. The reason why I employed the hot bath in Grace Plant's case, was the fear that her disorder had, in some measure, arisen from the partial suppression of the lepra; and also because the hot bath would at any rate be beneficial to her lepra. If you think that suppression of the catamenia has any thing at all to do with the complaint, you may give the pilula ferri composita; although the constant purging with pilula aloës cum myrrhâ will most probably produce a very beneficial effect upon the uterine system, in cases of the partial or total suppression of the catamenia.

If you proceed upon the principles just laid down to you, I cannot doubt that you will have the same success, in every case of chorea coming under your care, as I myself have had."—*Carbutt's Clinical Reports.*

RHEUMATISM.

This disease has been ranked amongst the opprobria of our art. Yet we think that the accusation is not strictly just, for science can do much to mitigate and cure acute rheumatism, and more to avert those dangerous complications and effects—inflammation of the pericardium, the pleura, and the cerebrum.

Dr. Carbutt considers, under the name of rheumatism, five different affections, and appears inclined to include as a sixth, the tic douloureux. He goes beyond the popular nosology, which allows but three, and which gives to them the classic names of "rheumatism," "rheumatics," and the "rheumatiz." The superficial examination of the vulgar has failed to discriminate those nicer shades distinguished by the eye of the clinical physician.

"The first variety," says Dr. Carbutt appears to consist in a peculiar, specific, inflammation of the muscular fibres, or of the cellular membrane, or of the muscular aponeuroses of one or more parts of the body. It is accompanied with much fever, excessive pain upon motion, a tongue covered with a thick, white or buffy coat; a moist, clammy skin: urine high-colored and depositing a rose colored sediment; a full, round, and bounding pulse: the blood drawn is coriaceous, and, for the most part, what is called cupped.

This kind of rheumatism, which is commonly known by the name of rheumatic fever, should be treated by means of copious and repeated bleedings.—Large doses of calomel should be given, first as a purgative, next in order to effect the system. Purgatives, salts and senna, for instance, should then be administered. Diaphoretics and sedatives, the best of which is the pulvis ipecacuanhæ compositus, or Dover's powder, should follow the purgatives. Lastly, large doses of the cinchona, or Peruvian bark, or otherwise of its preparation, the sulphate of quinine, may be exhibited. Low diet must be observed throughout.

The second way in which what is usually styled rheumatism appears, is in the form of arteritis or phlebitis, inflammation of the arteries or veins. I must candidly admit that I know of no precise diagnostic symptoms whereby to distinguish this affection from the rheumatic fever just described. Perhaps, however, the pain is greater and more circumscribed, whilst at the same time, the febrile symptoms are less intense. This kind of rheumatism should be treated with bleedings from the arm, local bleedings by means of leeches, calomel, salts and senna, Dovers powder in large doses, with low diet.

The third form in which this disease appears, is an acute, hot, and highly painful affection of the joints, as the elbows, the wrists, the knees, the ancles, accompanied with a moderate degree of fever. This is generally called acute rheumatism, it must be treated by *general bleedings*, local bleedings with leeches frequently repeated, calomel, purgatives,

Dover's powder, the hot-bath, cinchona, bark, or sulphate of quinine, low diet at first, generous diet afterwards. The colchicum autumnal or meadow saffron is very much recommended in this affection, but I have no great faith in its effects.

We hesitate to accede to the division drawn by Dr. Carbutt between rheumatic fever and acute rheumatism.—Such divisions are clear and satisfactory on paper, perhaps they may adorn a clinical lecture, but they lose their substantial reality and distinctness in the sick room and the ward. It is true that we find rheumatic inflammation affect in some instances the cellular and fibrous tissues, and perhaps the muscles, in preference to the synovial membranes—whilst in others the latter textures are principally implicated. This fact gives an air of plausibility and correctness to the distinctions which an able physician has drawn between synovial and fibrous rheumatism. It has even been believed with some semblance of truth that the latter is the form which evinces an exclusive disposition to metastasis. The experienced physician is, however, aware that these doctrines are no more than plausible, that Nature resists the arbitary law, that fibrous and synovial rheumatism are frequently combined in the same individual, and that affections of important organs, especially the pleura and the pericardium, may occur in both.

Dr. Carbutt asserts that the synovial rheumatism is attended with less fever than the fibrous. As a general rule this may be true, but it is far from being universally the case. In some of the very worst cases of "rheumatic fever" which we have had occasion to observe, the synovial membranes were the parts affected. We would not, therefore, state to pupils in the confident tone adopted by our author, that the two affections are separate and distinct, that one is a more acute variety than the other, and that a different treatment is required for both. Those pupils finding that the lessons of their teacher are not borne out by bed-side observation, and discovering that what was so simple in the lecture-room becomes contradictory and confused in practice, are frequently tempted in despair and disgust to dispute authority, undervalue learning, and trust to routine and empirical experience. Instead of laying down the positive divisions of Dr. Carbutt, we should rather proceed with more caution and more accuracy to state that rheumatism sometimes affects in preference one tissue, sometimes the other, and sometimes, though not so frequently, both—that usually the fibrous rheumatism is a more acute disorder than the synovial—that generally it evinces a more decided disposition to attack internal organs, especially the pleura and the pericardium—and that, commonly, certain, remedies are more useful in the one form than the other. When taught with such philosophical caution, we might almost call it doubt, the pupil will observe with corresponding care, and the apparent contradictions of nature will not astonish and may not perplex.

That division of rheumatism which is seated in the arteries and veins is hinted rather than described by Dr. Carbutt. We must own that we never saw an instance of the kind, and probably neither Dr. Carbutt nor ourselves would recognize it were it to occur. It is doubtful if, under such uncertainty, it is proper to admit the existence of the disease as one of a substantive character. The arteries or the veins may inflame in rheumatic cases, as the pleura, the pericardium, the mucous membrane of the bowels, perhaps every texture in the body may do. Yet the present condition of our knowledge would lead us to deem them consequences or complications rather than primary rheumatic symptoms.

It is curious that, although our author alludes to this obscure and dubious affection of the blood-vessels, he omits to notice the frequent and formidable affections of the pericardium. Yet, if any great improvement has been affected with respect to the management of rheumatism, it arises from the attention which has been directed to the heart. The experienced practitioner anxiously watches and promptly meets any symptoms of pericarditis and of pleurisy; he knows that they are common, insidious and formidable.

We lately saw an instance of fatal affection of the mucous membranes of the bowels. A girl, aged eighteen, had, twice or thrice previously, suffered from acute rheumatism, of the mixed fibrous and synovial character. In each attack, there had been symptoms of some implication of the pericardium. This winter she was again effected in a similar way, and was apparently recovering, when, at mid-day, she was seized with bilious vomiting, purging, and pain in the region of the colon, rapidly succeeded by collapse. Soon after midnight she died. Some little time ago we witnessed a case of the same description. Blood was voided in the stools, and for some time the patient was in the utmost danger; but he did not die.

Dr. Carbutt, it would seem, is an advocate for copious and repeated bleedings in rheumatic fever. We doubt the propriety of this practice. It does not cut short the malady, but it greatly debilitates the patient, and we are not sure that it does not tend to favor the occurence of metastasis. At all events, patients go through the disease well without copious bleedings, and we seldom or never have recourse to it. Of course we are speaking of an ordinary case, and of the ordinary treatment.*

"The fourth form of rheumatism is called chronic rheumatism, and is exactly the same as the third, except that all its symptoms are chronic, and there is little or no fever. It must be treated by leeches repeatedly applied to the painful joints, hot baths, blisters, calomel, stimulating liniments, cinchona-bark, ammonia internally, generous diet, the affusion of cold water on the painful joints, or lastly frequent bathing in the Buxton baths.

The last is an almost never-failing remedy; and, if I am asked how it operates, I answer, I do not know. Some substance as yet undiscovered by chemistry, exists, as I conjecture, in Buxton-water, on which probably its efficacy depends. The beneficial effects of Cheltenham-water in enlargements of the liver and spleen were acknowleged many years before the very existence of iodine in nature was known. Now, it is understood that iodine exists in Cheltenham-water, in the proportion of one grain in ten gallons. 'It seems not improbable,' says Dr. Daubeny, Professor of Chemistry at Oxford, 'that very minute portions of certain principles may act upon the system with an energy commensurate, not to their own quantity, but to the change their presence occasions in the properties of the more inert ingredients that accompany them.—In this manner we may explain the powerfully tonic effects of certain springs containing a very minute impregnation of iron; the cures effected by waters, such as those of Loueche or Gastein, which appear to approach as nearly as possible to absolute purity; and the efficacy in glandular disorders attributed to certain others, in which a minute proportion of iodine or bromine has been detected. In a Memoir read before the Royal Society, on the saline and purgative springs of this country, in which I stated the proportions of iodine and bromine present in each, I expressed myself as being sceptical with regard to any medicinal agency that could be exerted by so small a quantity as one grain of iodine diffused through ten gallons of water, the largest quantity in which I had ever detected it. The considerations above stated now induce me to attach more importance to the circumstance of its presence, for it is just as possible, *à priori*, that this quantity of iodine should infuse new properties into the salts which accompany it, and cause them to act in a different manner upon the system, as that less than a millionth part of potassium should create so entire a change in the relations of a mass of mercury to electricity. Whether the waters of Cheltenham or Leamington affect the constitution differently from the solution of

* In the following number of the Journal, Dr. Johnson means to attempt a distinction between what is called acute and chronic rheumatism—or rather to dislocate them. The former he would designate arthritis—the latter rheumatism.

Glauber salt, of similar strength, must be decided by the experience of those on the spot; but, granting this to be the case, and there is not wanting testimony in favor of such an opinion, the discovery of these new principles in several of them may serve to explain their superiority.'—I leave it to you, gentlemen, to decide, each in his own mind, how far these considerations apply to the undoubted efficacy of the Buxton-baths in cases of chronic rheumatism."

By the way, there are two remedies to which Dr. Carbutt makes no allusion—guaiacum for acute rheumatism, and mezereon for the chronic. Yet the mistura guaiaci is a very useful and a safe remedy for acute synovial rheumatism, and we have really seen it answer in a remarkable degree. It produces extreme diaphoresis.

The fifth form to which Dr. Carbutt adverts is sciatica.

"This affection (he remarks) sometimes attacks other parts besides the hip, as the face, the foot, and the mamma. It appears to me that it is essentially an inflammation of the membrane which invests the nerve of the part effected. This is shown by the intense pain, the sudden paralysis, so that a person walking in the street shall fall down as if in a fit, from which circumstance, no doubt, it has received the name of paralytic rheumatism, or rheumatic paralysis. The coldness, numbness, and wasting of the muscles, with the almost total absence of fever, altogether lead to the opinion, that it is more an affection of the nerves than of any other parts. When it exists in the face, it very much resembles the *tic douloureux*; or, for any thing I know to the contrary, the tic douloureux may be the same disease; which I think extremely likely. It should be treated, I apprehend, by means of local bleedings by cupping-glasses or leeches, by blisters, by mercury, especially calomel, so as to affect the mouth, by sedatives, as opium, extract of hyosciamus, or Dover's powder. A very good combination is, one grain of calomel and five grains of extract of hyosciamus, four times a day. Usually, as soon as the mouth is affected with the mercury, or even sooner, the disease yields as if by a miracle."

We have, on several occasions, rapidly cured old sciatica in this manner. We have ordered the patient to take five grains of calomel, a grain of opium, and half a grain of the extract *of* the acetum colchici, for four or five nights successively, adding, on the following mornings, a very active purgative of senna and colchicum, &c. We have twice or thrice had the patient cupped over the sciatic nerve, and then applied blisters in the same situation. These means combined together, and conjoined with the warm bath, have, in several instances, speedily routed the disease, which had resisted, perhaps, the same measures employed in a more desultory manner.

"There are two affections which it is my duty to caution you against mistaking for rheumatism. The first is that inflammation of the periosteum which we find in secondary syphilis, and which gives rise to those syphilitic pains which, as you must all know, are so frequently mistaken for rheumatism. The second affection is that pain of the shoulders and arms, of the back and loins, of the hips, thighs, knees, legs, feet, and toes, which I have mentioned in former lectures, as being symtomatic of gastro-enteritis, and as being very often mistaken by even elderly practitioners, and as regularly treated by them, for rheumatism, to the great injury of the patients, and the aggravation of their real complaints."

Dr. Carbutt relates nine cases, six of which were chronic. The exposition of his doctrine renders a notice of these cases unnecessary, especially as they display no peculiar features of importance.—*Medico-Chir. Rev. of Carbutt's Clin. Reports.*

GASTRIC NEURALGIA.

A very distressing case of this kind lately came to our knowledge, which cannot fail to be interesting to many of our readers. A gentleman of high intellectual attainments, and one of the most successful authors of the day, had suffered most severely, for nine months, with an agonizing pain in the region of the stomach, which came on every day at breakfast time, whatever he ate, or whether he took food or not—and continued without intermission, but accompanied by the most distressing flatulence, till he had finished his dinner and taken a bottle of wine. It then ceased, and he was perfectly well, and in good spirits, the whole of the evening. He also slept soundly, except when kept awake by an anticipation of the pains which he was to undergo the next morning. The nature of the food made no difference; nor did any alteration of the hour of dining alter the period of the gastralgia. If he dined at his long-accustomed hour—six o'clock, and took a bottle of port wine, his temporary security against the enemy was certain. An anticipation of the dinner-hour did not bring with it the relief expected. It may be well supposed, that a gentleman in his rank of life had had the best advice, and tried a variety of remedies. He resided in the country, and had never been our patient. He wrote a most pathetic letter, describing his sufferings, and imploring, for the sake of humanity, that we would suggest something for his relief. We prescribed the following:—

(*No. 1—Aperient.*)

℞. Decoct. aloes c. ℥iv.
Carb. sodæ, ʒj.
Carb. ammoniæ, ℈j.
Tinct. sennæ c.
Tinct. rhei comp. āā ℥ss.
Vini colchici, ʒ ij.

Misce fiat mistura, cujus capiat coch. ij. mag. primo mane, cum pauxillo aquæ tepidæ, et repr. dosis omni horâ donec alvus plene respondiat.

After the operation of the aperient he was desired to take a table-spoonful of the following mixture every hour, till the pain ceased, or until the bottle was finished.

(*No. 2—Anodyne.*)

℞. Confect. aromat. ʒij.
Carb. ammon. ℥ss.
Tinct. card. comp. ℥ ss.
Liq. opii. sed. ʒj.
Aquæ cinnamon. ℥iij. misce. ut supra capienda.

We did not deem it prudent to alter his diet, as regimen seemed to have no influence on the complaint. We desired him, however, to change port wine for brandy and water. We heard nothing from him for three weeks or more when we received a letter, containing the following report.

"—— Park, Nov. 10th, 1834.

Dear Sir,—I ought long ago to have thanked you for your prompt and skillful attention to my distressing case; but waited till I could speak with certainty as to the success of your prescriptions. I have the pleasure to say that I am completely, or very nearly so, relieved from the flatulence, which was more difficult to bear than the pain. This relief I mainly attribute to your *warm aperient*, which I have taken every morning. I had got some temporary ease, from the paroxysms of pain I described by a strong dose of morphium and strychnine, before your prescription arrived. It kept me dozing and sick for

nearly 48 hours. I then took your aperient medicine, and it has been so effectual, that I am nearly myself again—certainly a very different creature from what I was three weeks ago. I have changed my port wine for brandy and water, and enjoy my breakfast once more. I have not had occasion to take the anodyne marked No. 2 at all. I shall soon be in town to thank you in person for the great benefit I have derived from your able assistance."

The relief above described may or may not be permanent; but, even if temporary, it is of no small advantage. We desired him to strike out the colchicum, and persevere with the warm aperient. The gentleman is nearly 70 years of age, and of a very florid complexion, and, we believe, of gouty diathesis. We had never seen him but once, and that more than eighteen months previous to his application to us—when, in consequence of some official duties which we had to perform, this gentleman was somewhat incensed against us. This gastralgia was of a remarkable character, and we think it was occasioned partly by flatus and partly by some acrid secretion in the stomach itself. The regular periodicity of the attack, however, and the relief experienced by dinner and a bottle of wine, shew that the nerves were deeply implicated. Should we learn any more of this curious case, we shall state it to our readers.—*Medico Chir. Review.*

CREPITATIO MUSCULORUM.

In our last number, (October, 1834,) page 452, we mentioned a curious case of loss of power in one of the lower extremities, with a remarkable and loud cracking of the muscles, when the limb was put in motion. We mentioned that we had recommended the patient, lady W——, to make a tour on the Continent, more with the view of diverting her ladyship's mind, and improving her general health, than with much hope of restoration of power to the nearly paralyzed limb. She traveled through Holland—ascended the Rhine—visited the Brunnens, but did not bathe—made a tour through some parts of Germany, and also in Switzerland—returning by Belgium, and reaching London, after an excursion of eleven weeks. We preceded the patient in the same track, but having crossed the Alps into Italy, we did not happen to fall in with the party, or learn the result of the tour till recently. On calling at her ladyship's residence, we were not a little surprised and gratified to find her walking about the drawing-room, without crutches—and almost free from lameness! We learnt that the power of the limb gradually returned as she pursued her journey, and indeed had been nearly restored before she reached the Brunnens—consequently she wisely traveled on, and recovered the use of her legs. We were now anxious to ascertain whether the crepitatio musculorum remained—and we found that it had nearly disappeared, but was now as loud as ever. Since we published the account, a medical friend called on us, and stated that he had the same crepitation in the muscles seated on the back of his neck. This we ascertained to be the case by applying the stethoscope. But the cracking is not near so loud in the case of the gentleman as in that of the lady. We have observed that this crepitatio musculorum is noticed by one of the Dublin lecturers (but his name has escaped us) as sometimes occurring in chronic rheumatism. The astonishing benefit, however, which has resulted from traveling exercise, and that in such an unpromising case as lady W's, deserve record, as it may lead to other trials in similar circumstances.—*Medico Chirurgical Review.*

ON THE COMPLICATED FORMS OF VENEREAL DISEASES.

BY D. HENRY WALNE,

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The forms of venereal diseases are apt to be complicated, and this constitutes one of the chief difficulties in their management.

They are complicated with each other; with other diseases; with peculiarities of constitution; and with the effects of means employed for their cure.

It is the purpose of this paper to draw the attention of the profession to the practical consideration of these complications. The subject is much too extensive to be included in any single communication of a length consistent with the size of the Medical Gazette, and will probably prove less tedious to the readers of this journal if treated of in parts, and at intervals, such as will also best suit the engagements of the writer. To proceed, then: *the forms of venereal diseases are complicated with each other.* Primary venereal sores, which I shall call chancres, occur in the same person who has a gonorrhœa. The gonorrhœa at one time, the chancres at another, are first to appear. There is no uniformity upon this point. Mr. Jesse Foote was of opinion that according to a certain order of susceptibility of parts, determined by the nature of their structure, would be the order of appearance of local symptoms in such cases. But this is not found to hold good, though there is some foundation for the opinion. A chancre, for instance, on the body of the penis, seldom precedes a gonorrhœa in appearance, when complication of these two local affections occurs; one by the side of the frænum, or just behind the glans penis, not unfrequently does. Generally, however, gonorrhœa appears sooner than chancre in any situation.

The principal inconveniences occasioned by the complication of gonorrhœa with chancres, are, the greater severity of inflammatory symptoms when they affect parts besides the urethra, as the glans, producing tumefaction and sloughing, or the prepuce and skin of the penis, occasioning great swelling and phymosis; and the difficulty of directing a treatment suitable to the two affections.

It is not always, by any means, that the inflammatory symptoms run high in this complication, and when they do not, the question arises immediately, to which affection chiefly is treatment to be directed? Surgeons are not very well agreed upon this point, as the following case will illustrate. It will, I think, at the same time show what is the proper course to be adopted.

A very gentlemanly, timid man, who had in his little ailments, been too much in the habit of running from one surgeon to another, requested me to look at a small sore seated on the inside of the prepuce, within a very little distance of the frænum. The edges of the sore were raised and hard, the base hard, the shape round, and matter was sticking to the bottom of the cup-like cavity. I told him it was a chancre, rubbed it well with caustic, and ordered him a calomel purgative, and then to begin taking some mercury and to use a lotion of solution of lead with tinct. opii. Two days after, I renewed the caustic. Every thing seemed to me to be acting favorably. The appearance of the sore certainly better. At this moment, something said by a friend frightened my patient and off he went to an eminent surgeon. This surgeon, who assured him that it was very bad practice to apply caustic, as it took away the criterion of cure, ordered him *another form of mercurial*, and some other medicine in case it should gripe him; and directed some simple application to the sore. Next day I saw my patient, who confessed what he had done, but requested me to be so good as to look at the sore, which, now that his fright was at an end, he thought was doing very well. It was so, and his mouth beginning to be

tender. I told him the caustic had done all I wanted, that he could take his choice of the mercurials, as it did not much signify which he used, and that he must either let me meet the other surgeon or make his election as to who was to have the sole charge of his case for the future. He apologised, and put me in charge. Two days after this, however, he was again alarmed, by the appearance of a discharge from the urethra and the early symptoms of a gonorrhœa; and once more, after I had told him what was the matter, went by himself to the other surgeon. The clap and chancre were now existing together: the chancre half cured, the clap just commencing. A few days more of the mercurial treatment would have cured the sore, and would probably have rather benefited than otherwise the gonorrhœa; that, and local treatment for the clap, were what I had prescribed. The other surgeon condemned the intended proceedings entirely, and ordered some powders of rhubarb and some saline (sulphate of potash, I think), with no local means whatever. The patient had good sense enough to see the absurdity of this, and to estimate the consequences. It was suffering both diseases to take their course. A tedious clap and a constitutional syphilis might reasonably be calculated on. It is hardly necessary to add that he returned to me, requested me to overlook the irregularity which his timidity and alarm had caused, and to treat him my own way. I did so. Mercury acted kindly with him, and soon removed all vestige of the sore. An injection of solution of lead and tinct. opii, used in a manner which I shall hereafter explain, kept the gonorrhœal symptoms moderate, till in about ten days, cubebs could be employed; and these also acting well, effected a satisfactory cure, in as short a time as the gonorrhœa alone would have required.

This seems to me to be the rational course in the case of chancres complicated with ordinary gonorrhœa; and in no instance in which I have followed it have I had reason to regret its adoption.

When these two local affections occur together, and are farther complicated by high inflammation, involving the glans or the skin of the penis, the case is more important, and requires at first a different treatment—a treatment directed to the inflammatory symptoms, and measured by their severity.

Sometimes a chancre occupies the very orifice of the urethra, which is itself the seat of a gonorrhœa. In this case, or without this exact complication, the membrane of the inflamed urethra becomes so swollen as almost to close the passage, permitting the urine to escape in the merest thread-like stream. The prepuce and skin of the body of the penis are swollen greatly, and the glans, itself swollen, or even ulcerating or sloughing, concealed and constricted by the tumefied skin, is partially bathed in stinking matter which accumulates behind the corona. In aggravated examples the patient is feverish and restless, suffering great pain from tension of the inflamed parts.

In this condition of matter the surgeon can often effect much for the relief of his patient. He takes blood freely from the arm; and if the pain should continue, orders a dozen or more leeches to the skin of the penis. He directs a lotion of goulard, tincture of opium, and water, to be injected between the foreskin and glans penis, and into the urethra also, and that frequently; and a lotion of nearly the same materials with the addition of some spirit, to be constantly applied, by rags wetted in it and put on dripping wet, so as to surround the whole penis, and keep that part cool and perpetually well bathed with this lotion. The thighs, too, and lower part of the belly, may be sponged with some of it occasionally, which adds materialy to the general cooling effect. A purgative of calomel and jalap, in repeated doses, clears the bowels; and by continuing its operation a little beyond that object, further lowers fever and inflammatory action. Remedies such as these bring the case to the condition of one resembling the first form of complication—viz. chancre, to be treated with caustic or other local means, and the moderate use of mercury internally; with gonorrhœa, to be controlled by

palliatives till the chancre has been cured. Then copaiba, or cubebs, or the two combined, lytta, quinine, steel, or astringent injections, varied in use as may be necessary, complete the cure.

But it is not always that the swelling, &c. are so purely inflammatory as here described.

A great readiness to ulcerate widely, or slough extensively, out of proportion to the heat, pain, and fever, is occasionally observed, the patient being really weak, or more commonly very irritable and susceptible. Opium and hyoscyamus must enter into the early treatment of these cases; and the former, should it not agree with the stomach, must be administered by the rectum in case of great restlessness and much suffering. Quinine even may be necessary, whilst the local means should very much consist of spirituous applications; and, if cold disagree, fomentations with spirit should be substituted.

A gonorrhœa shall sometimes be the original affection, and besides the inflammatory symptoms, no other complications than a mere crack at one of the commissures of the urethral orifice shall have been observed, and this crack shall have healed without any difficulty or obstinacy, yet a few weeks after, copper-colored blotches, and a syphilitic sore throat, at least a sore throat with precisely the characters of that attending syphilis shall appear.

A case of this kind occurred to me some time since. A young gentleman had a very severe gonorrhœa; and after having been nearly a fortnight under the care of a young surgeon, sent for me. I attended with his friend. High inflammatory symptoms were present when I was called in. The penis was much swelled, as were the fore-skin and the lining membrane of the urethra. The skin of the penis was of a deep red color, and the part very hot and painful. Bleeding, &c. &c. very much as above recommended, were the means employed; and after a few days the inflammatory symptoms declined. A small crack of the upper commissure attracted my attention. I did not continue my attendance many days after the subsidence of the severer symptoms, but I understood that it healed readily; it might have ulcerated a little. His mouth was sore in the course of the cure, from calomel given in his purgative.

Some weeks after this he called on me with a polite note from Dr. Kerrison whom he had consulted for a sore throat and who, on examination, found ulcerated tonsils, with characters of syphilis so distinct, that he transferred the case to me as being surgical. It required the use of mercury with some perseverance to effect its cure, but yielded steadily to the employment of that remedy.

Bloomsbury Square, August 1835

MALPRACTICE OF MIDWIFERY.

We extract the following report of an important trial for malpractice of midwifery as a warning to the ignorant and inexperienced; and also as an evidence that with all the experience of ages, and the extent of British Medical education, they have not been able to exclude weak, ignorant and unqualified men from the honors of the profession. The British Institutions require for the lowest grade of the profession a more extensive curriculum or course of study than is demanded here, yet any medical man that would evince such palpable ignorance as Mr. Mather does in this case would be considered as a disgrace to the profession. There can be no doubt but that the rupture of the vagina was produced by the ignorant efforts of Mr. Mather.—Ed. Reg.

From the London Medical Gazette.

Phœbe Oldfield, æt. 40, unmarried, had lived during the last fourteen years at Chewmagna, where she kept a school; this she gave up in April last, on account of ill health, and came to reside with her parents in Bedminster, a village forming a continuation of Bristol. Her ailment appears to have been a disordered state of the bowels, and a more or

less fixed pain in the hypogastrium. On Wednesday, the 2d July, it had been so severe for the previous two or three days, that it was determined to have advice; and accordingly Mr. Mather, a surgeon and apothecary, residing in the neighbourhood, was called in. She was described by this gentleman as having "inflammatory symptoms," and "pain in the frame." Bleeding was proposed, but as she would not consent to it, she was ordered some strong aperient and febrile medicine.

At noon Mr. M. stated she was better; but on his evening visit, the patient's mother called him aside, and informed him that her daughter was six months advanced in pregnancy. He then saw her, and found her in strong labor-pains. From this time he remained with her, and before ten o'clock on the same evening she was delivered of a still born fœtus, apparently in its sixth or seventh month. Mr. M. states, that at that time (the labor having lasted about an hour) he expected another child,—indeed, he subsequently told Dr. Lyons that he then perceived the feet of another. But as difficulties seemed increasing, Mr. M. begged at half-past eleven for a consultation. After some unsuccessful calls, Dr. Lyons eventually came, "who, upon hearing the nature of the case, told Mr. M. that he begged to decline interfering, as he had not accustomed himself to the manual operations of midwifery. On the urgent request of Mr. M., however, Dr. L. consented to make an examination *per vaginam*; the result of which was, that he did not think there was a second fœtus, but he rather suspected an inversion of the uterus; the umbilical cord was shown him disconnected from the placenta, which had not come away. Mr. M. assented to this view of the case; for upon the arrival of Mr Wilson, a surgeon, whose assistance Dr. Lyons procured, Mr. Mather announced the case to him as one of "inversio-uteri,"—adding, that he was "tired of attempting to reduce it,—he had been trying for an hour,—that he had not strength sufficient, but he hoped that he (Mr. Wilson) had." In answer to inquiries respecting the placenta, Mr. M. observed that he did not know whether it had come away: he had not seen it, but he felt *membranes* in the womb. What these "membranes" were, and their locality, may best be inferred from that part of Mr. Wilson's evidence where he says, that upon a slow and cautious introduction of his hand through the vagina, which he described as being done with perfect ease, he felt only the abdominal parietes between Dr. Lyons' hand and his own (Dr. L. having placed his hand on the abdomen, for the purpose of supporting it). Suffice it to say, that an opening had been formed through the terminal portion of the vagina into the cavity of the abdomen, and the patient died in about an hour and a half or two hours. Under these circumstances, a post-mortem examination was made by the three medical men engaged in the case; and from a rumor which reached the ears of some of the parish officers, it was deemed necessary that a legal inquiry should take place.

The inquest was held at the Red Cow, Bedminster, before Mr. Ashford, the Coroner, on Monday, the 27th ult. The jury consisted originally of twelve persons, but after they had been impanelled, and had taken a view of the body, Mr. Mather objected to seven out of the twelve, and his objection was so far admitted that six more jurymen were sworn in. The first witness examined was the father of the deceased, who merely gave evidence as to her age, and other particulars of no material importance.

Mr. Mather was next called, and gave testimony as to the principal facts already mentioned: but we must give his precise evidence respecting the last two or three hours of the patient's life. He says, "The child was expelled after I had assisted her a full hour under strong labor pains. After a few minutes I examined the external parts, the abdomen, &c., and from the extraordinary fulness of that part, I fully expected another child; I said so to the mother, but from the internal examination, I ascertained that there was an extraordinary substance, and a consequent contraction of the womb, which prevented my extracting the placenta; upon which I called aside the mother, and said that there was

extreme danger in this case, and I would strongly recommend another opinion, being convinced that the woman would die. Dr. Lyons came to my assistance about twenty minutes past 12. Upon my consulting with him on the case, I said I considered that there was an extraneous substance in the womb, in consequence of a *protrusion* or *bearing down*, situated about an inch and a half from the neck of the womb. The Doctor then stated that he was not a practical midwife; that he did not undertake manual cases, but only attended after delivery. I then recommended him to examine the case. He told me he considered there was no extraneous substance in the womb, but that he had no doubt it was an inversion of the womb. I said I could not think so. I examined again, and discovered still the protrusion as before stated, and a second time tried to extract the placenta, and could not, in consequence of the contraction of the womb. I said to the Doctor on my second examination, that I thought I discovered a *membranous portion* of the womb, and I could not extract the placenta. I therefore considered it proper to call in the assistance of a surgeon, and I recommended the Doctor to call Mr. Wilson, as he was the nearest that would please me. He examined the case, and I heard him say there was considerable contraction of the womb, and he considered it advisable not to extract the placenta, because the patient was near her latter end—too much exhausted. She expired two hours afterwards. We all three went into a private room, and Mr. Wilson stated that there was a *rupture of the womb*; immediately upon which we called in the mother, and Mr. Wilson stated to her, "that there was a rupture of the womb, and it was not at all probable that her daughter could live long." She died in about an hour and a quarter from this time. On Friday morning the post-mortem examination took place. I was present, as were also Dr. Lyons and Mr. Wilson. Upon the abdomen being opened, on the internal parts of the womb was a considerable spongy texture, evidently a mark of long-standing uterine disease; but upon the external parts there were twelve tumors, which ought not to appear in a healthy state. The largest was the size of a goose's egg, and in consequence of these unnatural symptoms, there is, in my opinion, not the least doubt but that the very laborious labor the patient labored under was the cause of the rupture of the womb."

In answer to a question whether it was the *womb* or the *vagina* which was ruptured, Mr. Mather replied, it was "*the womb*, the upper part of the vagina—that is, leading to the womb."

Dr. Lyons was the next witness; his evidence was necessarily very lengthy, from its comprising so many circumstances connected with the case. The following are such passages as appeared not to have been included in the preceding parts of this report;—

"At Mr. Mather's request I passed two fingers along the posterior part of the vagina and into what I considered to be the os uteri, or mouth of the uterus, when I felt a tumor situated rather anteriorly. I withdrew my fingers, and having gone into an adjoining room, I stated to Mr. Mather that, from the slight examination I had made, I conceived the tumor was the body of the uterus; and if so, that it was partially inverted. He then requested me to reduce it. I declined for the reasons stated in Mr. Mather's evidence and advised him to procure the opinion of another surgeon. We returned to the room where the patient was, and he attempted to reduce the tumor. He said that he had not sufficient strength to return entirely. He again asked me to attempt it. I refused, and insisted on the necessity of another surgeon being sent for. I went and procured Mr. Wilson, who returned with me. The post-mortem examination was conducted by Mr. Wilson, in the presence of Mr. Mather, myself, and one of Mr. Wilson's pupils. The appearance of the body was that of a woman about 40. The external parts bore marks of recent delivery. The uterus was exposed by an incision through the parietes of the abdomen; it was much diseased, and had on its external surface twelve tumors, of different

sizes; one the size of a small orange. In the upper part of the vagina was a rend three or four inches long. One of the tumors was divided in opening the uterus; it was of a white and fibrous texture; they were scarcely to be felt on the interior surface. It was stated to the mother that the cause of death was the rend in the vagina; how it was occasioned we could not say. Never before saw a case of laceration of the vagina; nor had I ever before seen the uterus in such a diseased state; nor am I prepared to say how such a condition would have affected recovery."

Mr. Wilson's evidence followed. From this also such extracts shall be made as do not appear to be repetitions of former evidence.

"Upon arriving Mr. Mather told me that this was a case of inversion of the womb; that he had tried to reduce it, but had not strength; that he hoped I had more. I asked if the placenta had come away. Mr. Mather answered, he did not know, he had not seen it; but that membranes were to be felt in the womb. I then proceeded to the patient; her pulse was sinking fast, and there was something unusual in the feel of the abdomen. I introduced my hand with extreme caution, expecting something uncommon. It passed without difficulty into what I conceived to be the cavity of the uterus. Dr. Lyons had placed his hand previously on the abdomen. On feeling about, to ascertain where my hand really was, as I felt something very unusual, I turned my hand, and felt Dr. Lyons' hand so plainly, that I was convinced that the walls of the abdomen alone intervened between his hand and mine. I then withdrew my hand, and sought the mouth of the womb, as I found my hand was not in it, but among the intestines in the cavity of the abdomen. I immediately found the mouth of the womb, and observed to Dr. Lyons and Mr. Mather, that I now had discovered the uterus; that it had contracted on the placenta, but as the patient's life could not last long, it would be useless to endeavor to extract it. We went into the adjoining room and stated the hopelessness of the case to the mother, as detailed by Dr. Lyons; and the patient died in about an hour and a half from this time.

"I examined the body of the deceased on the 25th, in the presence of Dr. Lyons, Mr. Mather, and one of my pupils. The abdomen was remarkably distended with flatus, which escaped upon making an incision through the parietes. The uterus immediately came in view, much enlarged and studded over with tumors, some of which were as large as a small orange, as described by Dr. Lyon. At the upper part of the vagina, where it forms a junction with the uterus, was a rend four or five inches long. There was *no rupture of the womb whatever*. As far as we could perceive, no other viscus was in an unhealthy state. Being ourselves satisfied as to the cause of death, we withdrew to the adjoining room, and, in the presence of Dr. Lyon and Mr. Mather, I stated to the father and mother what I had found, and that the false opening of the vagina was the cause of death."

In answer to a Juror:—"Whatever caused laceration occasioned death. The tumors were on the exterior of the uterus, not the interior. The vagina was healthy, and the uterus was not weakened in its structure. If the placenta had been withdrawn, it should have been at the proper time, before such efforts were applied to the parts. It is not probable that she would have died when she did from the disease of the uterus, although its state was such as to embarrass the diagnosis of any man. Natural efforts could not have produced the rend at the place where it occurred."

Verdict.—We find, from the examination of the medical gentlemen who attended the deceased, Phœbe Oldfield, immediately previous to her death, as also from their evidence on a post mortem examination, taken the day subsequent to her disease, that her death was occasioned from unusual circumstances, arising out of a recent and painful labor.

Remarks.—The question, doubtless, will suggest itself to most readers, "How has it

happened that, with evidence so clear, such a verdict was returned?" The following considerations may serve in some degree to explain :—1. Although there were on the inquest so many points discrepant one with the other—more, indeed, than I have thought it necessary to introduce into my report—yet not a question was asked by the coroner for the purpose of making clear to the jury those points which, from their professional nature, it is evident required some elucidation; and during the time Mr. Wilson was giving his evidence (the most valuable, certainly, of all), Mr. Mather was allowed, undisturbed, to walk about to the jury with a preparation in spirit, said to have been one of spontaneous laceration of the uterus on its anterior surface. This, together with Mr. Mather's perseverance in stating the opening to have been in the womb, and not in the vagina, will shew that it was his wish to explain the case as having occurred through natural causes.

2. Notwithstanding these circumstances, a majority of the jury, as I have reason to know, was convinced of the true bearing of the case. There were three points, however, which had no small influence with them; first, that it would be indelicate to use such language as would convey a just statement of the case to the public; secondly, that it would be unkind to be the means of depriving a man, by an unfavorable verdict, of the power of supporting a family; and thirdly, that they would be exposed to an action for defamation of character, if they told the truth.

It is curious that six months have scarce elapsed since another case occurred in Bristol, in which the hand of the accoucheur was introduced into one of the iliac fossæ by the exercise of an undue degree of force. The preparation of the parts of this case is preserved in the museum of Mr. Swayne, the lecturer on midwifery at the Bristol Medical School. No legal cognizance was taken of the circumstance; but it may be added, that there was here no disease of the uterus to palliate the accident.

Dr. Graves, the able editor of the Dublin Journal of Medical and Chirurgical Science, has translated from a German periodical the following novel and interesting article on the treatment of Croup and the application of Leeches.—As. Ed. Reg.

NEW AND EFFICACIOUS METHOD OF TREATING CROUP.

The following observations, from the pen of Dr. Lehman, staff surgeon in Torgau, are well deserving of notice. According to my experience, says Dr. Lehman, there is no better way of treating croup at its commencement, than by the application of hot water to the larynx. This method has the advantages of being simple, efficacious, and easily applied, and its good effects are not productive of any injury to the constitution. The proper time for the application of this method is at the very commencement of the disorder, when, as is usually the case, the child is awakened suddenly during the night by its invasion; no time should be lost, when we observe that the breathing is anxious, disturbed and attended with the well known croupy sound, and a cough of a ringing character, &c. The symptoms are too well known to require enumeration here; suffice it to say that the most speedily fatal cases are those, where the child goes to bed apparently quite well, and not laboring under any catarrhal symptoms, and is awakened from a deep sleep by the attack of croup. Such cases often prove fatal in twenty-four hours. Even when thus intense, the disease may be arrested in its progress by the immediate application of hot water, in the following manner; a sponge, about the size of a large fist, dipped in water, as hot as the hand can bear, must be gently squeezed half dry, and instantly applied beneath the little sufferer's chin, over the larynx, and windpipe; when the sponge has thus been held for a few minutes in contact with the skin, its temperature begins to sink, and it requires to be dipped again in the hot water. It is better to have a second sponge ready,

so that they may be applied alternately. A perseverance in this plan, during from ten to twenty minutes, produces a vivid redness of the skin over the whole front of the throat, just as if a strong sinapism had been applied. This redness must not be attended or followed by vesication; in the meantime the whole system feels the influence of the topical treatment; a warm perspiration breaks out which must be encouraged by warm drinks, as whey, weak tea, &c., and a notable diminution takes place in the frequency and tone of the cough, while the hoarseness almost disappears, and the rough, ringing tone of voice subsides, along with the dyspnœa and restlessness; in short, all danger is over, and the little patient again falls asleep, and awakens in the morning, without any appearance of having recently suffered from so dangerous an attack. If, on the contrary, a slight cough still remains next day, it may be easily gotten rid of by means of diaphoretic and antiphlogistic remedies suited to a feverish catarrh. When the suitable application of hot water, in the manner above recommended, does not produce well-marked and evident relief, at furthest at the end of twenty-five minutes, then nothing more can be expected from a longer perseverance in it, and the increasing cough, hoarseness, anxiety, and dyspnœa of the child, must be met by other means. I must observe, however, continues Dr. Lehman, that this method has not yet failed in my hands, *when applied in the commencement of the disease*, and it has been practised in several families I attend, in many cases successfully, and before my assistance could be procured.*

Ingenious Method of applying Leeches.

In a conversation between the professor and his pupils, in the surgical clinic of the Charite at Berlin, it was one day incidentally mentioned that we possess no certain method of making leeches bite exactly where we wish; for in applying them with the finger, they generally swerve a little to one side; and when they are inclosed in tubes of glass, or quills, their inclination to bite is frequently checked by this confined position. Dr. Ernst Elben, who happened to be present, immediately observed, "an experiment has just occurred to me, by means of which I can accomplish it." The professor consequently marked out a certain number of points on the skin of a patient. Dr. E. now took a piece of gray blotting paper, such as is used for straining coffee, and made in it a number of little holes, corresponding to the indicated points; he then dipped the paper in water and laid it on the skin of the patient, in such a way that one of the little holes he had made in it with a pair of scissors should be exactly over one of the indicated points. He then placed the leeches on the surface of the paper, which he prevented them from leaving. The animals finding themselves in contact with a rough surface, to which they could not make themselves fast by means of the head, began to creep about, and continued their motions until they came to an opening in the paper, it instantly applied itself to bite the exposed point of skin: thus the object was affected. While the leeches were engaged in sucking, a little more water cautiously applied to the blotting paper rendered its removal easy.—*Medicinische Zeitung.*

* In addition to this remedy of hot water, which may be always had in a few minutes, I would advise the instant detraction of blood from one or both arms. If the hot water fails to give relief, then more blood, if necessary, may be taken from the jugular veins, and the child should get a small dose of tartar emetic, every ten minutes, so as to keep it in a constant state of nausea, just within the limits of vomiting. This state, however, can seldom be attained until vomiting has taken place once or twice. None but a medical man of experience is competent to superintend the administration of tartar emetic in a case of croup; it should never be intrusted to nurses or parents. The medical man, or his assistant, should not quit the patient until he is out of danger.—R. J. G.

REVIEW.

The Dublin Journal of Medical and Chemical Science. September, 1835.

The present number of the Dublin Journal derives much of its interest from the ample report which it contains of the recent proceedings of the medical section of the British Association. As we gave an early account of the principal papers read, and subjects discussed, at the several meetings, it will not be necessary now to retrace our steps; we may avail ourselves, however, of the copious record of our cotemporary, and extract from it, with his permission, one or two documents to which we had not more immediate access. This we have partly done in a preceding page.

Of the *Original Communications*, the first, by Dr. Harrison, Professor to the Irish College of Surgeons, is curious. It is the relation, with remarks, of

A Case in which several Metallic Bodies were found in the Stomach.

The person in whose stomach the substances in question were found was an old man of the name of Wall, whose body was sent to the anatomy school of the College for the purposes of dissection. "With the living particulars of this individual," says Dr. Harrison, "I am almost wholly unacquainted, and shall therefore only mention that he had been, as I am informed, confined in a lunatic asylum for many years; that his bodily health was in general good; that his habits and propensities were so mischievous as to render him extremely troublesome; and that he had an uncontrollable desire to seize every hard substance, particularly pieces of iron, that came within his reach to taste and to secrete them. I am not aware, however, of any observation having been made, during his life-time, of any ill effects having arisen from an indulgence in this feeling. In the course of the dissection sufficient morbid changes were discovered in the brain to account for death; on those, however, I shall not dwell, as at present I merely wish to notice the appearances which were observed (at first accidentally) in the abdomen. When this cavity had been opened, the attention of those present was at once attracted to the peculiar dark tinge of all the small intestines, which were distended with fluid of the same color. The stomach, though nearly empty, appeared of inordinate size, its left portion extending nearly as low as the left ilium; its coats felt remarkably thick. The peritoneum was free from inflammation, and with the exception of the two circumstances already mentioned, there was no other anormal appearance in the exterior of the alimentary canal. The liver was of the usual size and consistence; its color, however, particularly in the right lobe, was peculiarly dark, not the mere effect of sanguineous congestion, but of the same deep ferruginous hue already noticed as so strikingly seen through the intestinal tunics. There was no bile in the gall-bladder. The spleen, pancreas, kidneys, &c., all presented normal characters. On pressing and examining the stomach and intestines, several very hard and irregularly shaped bodies were distinctly felt; one of these was easily pushed with a slight force, which curiosity induced, through the arch of the colon, and was found to be a piece of iron of four or five inches in length. The stomach was then opened, and was found to contain a great quantity of dark mucous fluid, and several metallic substances, such as the rusty remains of large nails, long pieces of thin iron, like portions of iron hoops, a worn-down blade of a knife, a large iron buckle with a pewter tongue, as that of a saddle stirrup, an iron hinge of a box or door, and several small pieces of metal, too thin and worn to admit of their original use or form being in any way recognized. Four or five pieces, in the same state, were also found in different parts of the intestinal canal, in addition to that already mentioned in the colon."

Most of these substances, it appears, had undergone considerable corrosion or solution, as if in a weak acid; and the disintegrating process, it was observed, had taken place in

one direction in decided preference to another, "so as to present a very distinctly fibrous structure, as if the decomposition had proceeded more readily in the direction in which the metal had been drawn or beat, than in an opposite or transverse course." It was also remarkable, that while the iron rim of the buckle was nearly worked through by the solvent agent in the stomach, the pewter tongue was unaffected, and presented its full form and size.

The muscular coat of the stomach was hypertrophied throughout; the cardiac orifice was unusually large, but the line of demarcation between the œsophagus and stomach was peculiarly distinct. The mucous surface of the left portion presented no appearance that could be considered very anormal, excepting the great development of the submucous glands, which were nearly as conspicuous as those in the crop of some granivorous birds. But the pyloric portion of the stomach was much more changed; the aperture of the pylorus was dilated to such an extent as to leave no trace of the valve. "The rugæ of the mucous membrane in the pyloric third of the stomach were unusually prominent, being elevated into firm, thick, vascular masses, so as to give the appearance of granulated projections or fungous growths; there was, however, no abrasion or ulceration on their surface, nor any unhealthy secretion, as in malignant or fungoid diseases, which these appearances at first view resembled. On an accurate examination it was clearly ascertained that these soft vascular projections were merely excessive developments of the natural rugæ of the stomach. The whole of this surface was deeply tinged with the same ferruginous sediment as has been already noticed in the fluid contents of the alimentary canal, and which obviously consisted of particles derived from the gradual solution of the metallic bodies which were contained in the splenic end of the stomach. In a depression between some of the granulated elevations that have been alluded to, a small opening through the stomach was observed; around this the coats were thin and hard, resembling the cicatrized circumference of a small ulcer, caused, in all probability, at some remote period by some of those irritating substances in the use of which the individual had indulged. It did not appear, however, that any of the contents of the stomach had ever escaped through this opening.

"On submitting a portion of the colored fluid matter which was contained in the alimentary canal to a careful examination, the presence of iron was easily detected. This metal was found in abundance both in the precipitate, or sediment which was collected from the intestinal fluid, as well as in solution in the latter. In the former it existed in the form of a sulphuret; in the latter it was combined with the muriatic and acetic acids."—*London Medical Gazette.*

SUICIDE BY THE ADDER.

To the Editor of THE LANCET.—SIR—An adder was captured by me and confined very loosely in the folds of a thin lawn handkerchief, so that I might observe its efforts to escape. The handkerchief was laid with the adder on a grass plot, and after several energetic but ineffectual attempts to free itself from bondage, the animal deliberately inflicted a bite on its own body, and quickly died. Such an act of suicide has been asserted of the scorpion but I have never heard of the like circumstance in an adder, excepting on this occasion. The circumstance cannot be attributed to instinct, a principle which might assist it in its efforts to escape, but could never prompt so unnatural an act as that which produced death. Let this fact (witnessed by two others as well as myself) be added to the number of extraordinary events which foil the philosopher in his efforts to deny the existence of intellect, unquestionably bestowed in various modifications on the lower animals of the creation. I am, sir, yours truly, WILLIAM H. THOMAS.

Bristol, Sept. 16, 1835

VISCERAL HYDATIDS.

From Dupuytren's Clinical Surgery.

Visceral hydatids, developed in the cavity of the abdomen, may be mistaken for a host of tumors too numerous to be detailed here, and which have, moreover, been carefully studied; but there is still one to which I deem it right to call your attention, I mean the development of a fœtus in the mesentery of a boy of 14 years of age.

Amedee Bissieu, was born in 1790, of a young woman, healthy, and the mother of another child, which was well made and of a good constitution.

During the night in which his mother supposed he was conceived, one of those alarms then so common in France, caused great commotion in the town and called the inhabitants to arms.

During pregnancy, Mad. Bissieu experienced some distress and frequent indisposition, nevertheless, her delivery was without accident. It was remarked that during the labor, a great quantity of water escaped from the vagina. Immediately after birth the child was given to a nurse, who, on account of its weakness and ill health, despaired of its life for some time; brought back to his father's house, he began to complain, as soon as he could lisp a word, of pain in the left side of the chest and belly. This latter part was so large as to lead to the supposition of his having tabes mesenterica; but, on the other hand, its size was so variable, that it was determined to lace his pantaloons in order to suit these variations. As he grew, the fears of tabes disappeared, but he still was delicate, his face thin and wan, constantly complained of pain in the side, his appetite was irregular and capricious, and he was subject to frequent indigestion. One day, when dressing him, it was observed that the two lower left ribs were higher and more projecting than the other, which was attributed to a habit of sucking the thumb of the right hand, and inclining his body to the same side. Little attention was paid to this circumstance, as the child was remarkable for his gaiety and precocity. He was sent to a boarding school at Rouen. After a residence there of eighteen months, he was suddenly attacked with an acute pain in his side and left hypochondrium, continued fever with exacerbation and a sensation of oppression; great tumefaction of the belly, in the part where formerly had existed the projection, and continual pain. The patient was bled and purged. The fever continued; the swelling increased. On the 7th day of his disease, his physician, M. Blanche, felt distinctly, in the abdomen, a hard and very painful tumor, extending from the false ribs to the spine of the ilium, rounded and as of the size of a large melon. Emollient applications and soothing enemata were made use of. The pain, however, still continued until a copious discharge of purulent and fœtid matter took place. The release from suffering and the decrease of the tumor did not arrest the emaciation of the patient, and falling into a state of marasmus he was sent back to his family. On his arrival, MM. Guerin and Bertin Desmardelles recognized this hard and large tumor in the left hypochondrium, but in spite of their efforts, the disease still progressed. To a continual and obstinate cough with purulent expectoration, there was soon added a diarrhœa of fœtid matter, in which was found, six weeks before his death, a small ball of hair. At last death closed the scene and this young man perished in the 14th year of his age, and six months after the first appearance of the symptoms of the disease.

An autopsical examination having been solicited by his parents, it was performed on the next day by his physician. He found in the left hypochondrium, below the spleen, a very large membranous sac, thick, adhering to all the surrounding parts, and particularly to one of the large intestines, which they presumed to be the colon, and in this sac, in the *midst of* a purulent, thick, and yellowish matter, two principal masses of nearly equal size,

situated transversely in front of the vertebral column, in close contact with each other, and yet distinct. The lower of these masses was composed of a large quantity of matted hair, around this were two small balls of hair similar to that which had been discharged by the patient before his death; the other, situated higher up, was an elongated, fleshy, and bony mass, covered with skin. There was discovered in it a badly formed head, with hair, teeth, the rudiments of a nose, and kind of orbit on one side, and of ear on the other; and on the opposite side an appendage like a limb terminating in divisions having each a nail. Lastly, from the middle of this mass, which seemed to hold the place of chest and belly, a thick and short ligament extended and was inserted in the parietes of the cyst. MM. Guerin and Desmardelles deeming it worthy of further research, removed without injury, this fleshy mass, and also the stomach, spleen, and parts of the large intestine. They stated, that there existed neither externally nor internally, any trace of female organs, and that the sex of Amedee Bissieu was purely male. Lastly they found on dissection, 1st, that the liver was large, although it had been compressed and thrust into the right hypochondrium; 2nd, that the lungs were whitish, and contained pus infiltrated throughout their substance.

So extraordinary a case attracted much attention, the preparation was brought to the Faculty of Medicine at Paris, and I was appointed to make a report on this singular production of nature.

The first fact which I ascertained, in relation to the position of the fœtus, was, that it was lodged in a cyst of the transverse mesocolon, which had at a very late period, communicated with the cavity of the intestine, from the destruction of the separating partition. Continuing the examination, I found that the organized mass contained in the transverse mesocolon had many points of resemblance with a fœtus, but also many peculiarities, some, owing essentially to malconformation, and others apparently depending on the changes induced by time, and its stay in the cyst of the mesocolon.

I then dissected the mass with great care, and found traces of some of the organs of the senses; a brain, spiral marrow, large nerves, muscles, which had degenerated into a kind of fibrous mass, a skeleton composed of a vertebral column, head, pelvis, and the rudiments of nearly all the limbs; lastly, an umbilical cord, very short, and inserted into the transverse mesocolon, outside of the cavity of the intestine, an artery and vein ramifying at each extremity towards the fœtus, and the individual to which it was attached.

The existence of the preceding organs was sufficient to establish the individuality of this organized mass, although it wanted the organs of digestion, respiration, for the secretion of urine, and generation.

It would be necessary, in order to complete our labor, to determine the degree of importance of this phenomenon; but, for that purpose, its true cause must be known; then alone could we judge of its importance, by the greater or less degree of light thrown, as well on the natural process of generation, as on the irregularities of this function. However, looking upon it merely as one extraordinary case, it does not deserve the less attention, on account of the very great rarity of its occurrence.

HOSPITALS AND ASYLUMS OF PARIS.

The following statistical details relative to the hospital establishment of the metropolis of France have just been published.

There are twelve hospitals, namely;—

1. The Hotel Dieu, containing 1000 beds. All cases are admitted except children, incurables, lunatics, lying-in women, or persons laboring under venereal or chronic disorders.

2. L'Hôpital de la Pitie, containing 600 beds. Same regulation as to patients as in the Hôtel Dieu.

3. L'Hôpital de la Charite, having 300 beds; with same regulations as to patients.

4. L'Hôpital de St. Antoine, with 250 beds, under the same regulation.

5. L'Hôpital Cochin, 200 beds; patients as in the Hôtel Dieu.

6. L'Hôpital Necker, 140 beds; regulated as the preceding. There is here a special clinic for lithotrity.

7. L'Hôpital Beaujon, 180 beds; as at the Hôtel Dieu.

8. L'Hôpital des Enfans, with 550 beds, for children of both sexes, from 2 to 15 years of age.

9. L'Hôpital St. Louis, containing 700 beds; for diseases of the skin, ulcers, scrofula, ring-worm, &c. Gratuitous consultation daily. Baths of all kinds; medicinal, vapor, sulphur, &c.

10. L'Hôpital des Veneriens, having 650.

11. Maison Royale de Sante, 175 beds: for patients who, being unable to have themselves attended at home, pay three, four, or six francs a day for their treatment here.

12. La Maternite, or lying in hospital, containing 350 beds.

There are 10 *hospices* or asylums, viz.:—

Hospice des Enfans trouves, or Foundling Hospital, containing 258 beds.

Two Asylums for the Aged. For females, at the Salpetriere there are 5,100 beds; at the Bicetre, for males, 3,200.

Two Hospitals for Incurables: for women and children, 525 beds; for men, 455.

Hospices Larochefoucauld 200 beds, for the employes of hospitals, and the indigent, aged and infirm, of both sexes who can contribute somewhat towards their support.

Hospice des Orphelins—Orphan Asylum—750 beds: half for girls, and half for boys, who are kept there till they grow up.

Institution de Ste. Perine, 175 beds: both sexes, aged and infirm, who pay certain fixed sums for their support.

Hospice des Menages, 670 beds: indigent married people, of from 60 to 73 years of age.

Hospice St. Michel, 12 beds: for old men of 70 and upwards. This asylum was founded by M. Boulard, formerly a merchant of Paris.

Thus there are altogether, in the French metropolis, at the disposal of the Council General of Health, 16,549 beds; in addition to which, the people of Paris may boast of a large number of other institutions devoted to benevolent purposes.—*Gaz. des Hopitaux.*

CASE OF RABIES IN THE HORSE.

By Professor Dupuy.

A horse, fourteen years old, that had been bitten by a dog supposed to be rabid was observed not to feed so well as he was acustomed to do; and when, in the evening, he was placed in the stable, he attempted to bite the horses that were nearest to him.

In the morning he showed the same disposition, rolled himself on his litter, and uttered the most frightful cries. A veterinary surgeon was sent for, who gave him a drink composed of two ounces of aloes, and some mucilaginous injections, thinking that he labored under stomach staggers.

On the following day all these symptoms were aggravated, and the veterinary attendant ught that he was affected with phrensy rather than indigestion; and placing him in

another stable, he practised two copious bleedings during the day, and inserted two setons in the chest, and the same number in the thighs.

The violence of the symptoms rapidly increased; the animal bit himself every moment, tore the setons from his chest, and rolled about, and rushed at every one whom he saw. At length he broke his halter, and was loose in the stable, from which every one hastily escaped.

On the fourth day he continued to eat and drink, and even with avidity. His groom, entering the stable, offered him water; he drank nearly two pailsful, and made no attempt to bite him. It was not, however, throught prudent for any one to go near him afterwards, and his food was thrown to him through an opening over the door, and a bucket was likewise suspended from the door, and supplied with water by means of a copper tube. As soon as he heard the water falling into the pail, he fell into violent convulsions, seized the tube, and crushed it to pieces.

On the fifth day he was covered with sweat, his eyes glared, he continually shook his head, furiously bit the right side of his chest, plunged about, and sighed deeply every moment. He foamed a little at the mouth; when the water in his bucket was agitated, he was seized with violent convulsions. He would occasionally approach the bucket, as if he wished to drink, and then, after agitating the water for some instants, he would fall on his litter, uttering a hoarse cry; but he would rise again almost immediately. These symptoms were dreadfully increased if water was thrown upon his head, and, he would endeavor to seize it as it fell. This continued until the next day with little change, when he died in violent convulsions.

On examining him after death, the muscles were found to be discolored and softened; they were easily torn, and much black coagulated blood was found in the intermuscular cellular texture. The subcutaneous cellular tissue was in many points infiltrated by a blood colored serosity resembling jelly, which was particularly evident about the larynx. This was also seen in the laminous tissue along the dorso-lumbar portion of the spine; and it seemed to unite together the granules of the parotid gland, which were gorged with black blood.

The muscular coat of the œsophagus, of an orange-red color, was easily torn; the substance of the heart was also discolored and softened, and its exterior surface presented several large black ecchymoses.

The venæ cavæ, the right auricle and ventricle, and the pulmonary artery and its divisions, were also filled with black coagulated blood. The pulmonary veins, the left auricle and ventricle, and the large arterial vessels, contained blood of a much lighter color than in its natural state; large ecchymoses were found on the lining membrane, and the pericardium contained three pounds of red serosity.

The tissue of the salivary and parotid glands was exceedingly red, as were also the surrounding parts. The liver was enlarged, gorged with black blood, and easily torn. The membrane lining the septum of the nose, the nasal cavities, the turbinate bones, and the guttural pouches, was thickened and infiltrated. That of the larynx, trachea, and bronchi, was of a violet hue, and all these passages were filled with mucous spume.

The cineritious portion of the brain and spinal marrow was redder than in its natural state, and the medullary substance presented numerous little red spots. The mesian and lateral sinuses of the dura mater were filled with black blood.

The membranes of the brain and the plexus choroids were very red, and the fringed or floating substance of the concretion was of a stony consistence.

The spinal marrow was softened at various parts, and particularly from the fifth cervical vertebra to the third dorsal. At the lumbar region it was fluid, or resembled a

broken down caseous matter. There was also a yellow infiltration about the roots of the nerves, and between the duplicature of the membranes which invested the spinal marrow.—*Journal Theor., Avril* 1835, *and Veterinarian.*

EXAMINATION OF MEDICAL STUDENTS.

The following extract from the examination of Dr. Grainger, before the Parliamentary Medical Committee, touches an abuse which prevails to a great extent in this country as well as in England. The mode of examining young medical men for the honors of the profession, is injurious to science and unjust to the candidate and the public. It is a star-chamber affair from beginning to end; and neither the public nor the candidate who has passed or been rejected has any means of ascertaining the real merits or demerits of the examinors or the examinee. There is no trace of the examination to be found except what the memory of the candidate retains. If all examinations for medical honors were public and a record of the questions and answers preserved, the ignorance and prejudice of medical examiners would be effectually cured; and the public might rely that a Diploma was a real test of intellect and professional attainment. Let all examinations be public and the real and relative merit of examinor and examinee will be known. In this way alone can partiality, prejudice and ignorance, be rebuked and driven from the judgment seat of medical science, and the profession purged of the half educated rowdies by which it is too frequently disgraced.—As. Ed. Rev.

649. "Have you ever heard of a candidate for a diploma being rejected in consequence of the deafness of an examiner?"—It has been mentioned to me by a private lecturer on anatomy, that to his knowlege, in more than one instance, a young man who was extremely nervous (as many of them are at that time), one of the examiners, who was deaf, and at the same time rather irritable, not hearing the answer, has said 'What does the gentleman say? Speak up, sir.' This, he said, had operated disadvantageously in increasing the nervousness of the young man; but whether such a circumstance has actually led to rejection I do not know. I will mention a case that has come to my own knowledge. Some of these examiners who have lived to an advanced age, have been so little acquainted with the great advances that the science of surgery has made, that they did not know the doctrines of the present day. A few years ago, when it was the practice to have only one examiner to each candidate, I know a case of an extremely industrious student, one of the most industrious students that I ever had, a man that was extremely well qualified to become a member of the College of Surgeons, being rejected by one of those senior members of the Council, upon the following point. The student was asked by the examiner, whether, in case of mortification following a compound fracture, he would think proper to amputate at a time when the line of separation had not been established, and the patient was, apparently, in an extremely critical state. He said, 'Yes;' and for saying 'yes' was rejected. Till within a few years it was the universal rule laid down, that where no line of separation was established, amputation ought not to be performed; because it has been observed in many cases, that the disease afterwards continued, and the stump mortified. Now it has since been determined, and the credit of establishing this distinction is especially due to Baron Larrey, that in a case of gangrene arising from external violence, if it be evident, from the general state of the case, that the gangrene has been the result of local injury, and that it does not depend upon constitutional causes, the only chance of saving a patient's life, is by amputation, even when no limit has been set to the gangrene; for, to use Larrey's own words, 'the gangrene from external injuries always continues to spread, the infection becomes general, and the patient dies.' This student was rejected for giving an answer in accordance with Larrey's observation. He gave way to the

decision for his rejection, because he knew not at the time that he had (as it subsequently appeared that he had) a right of appeal from a single examiner to the whole Court of Examiners. He stated the circumstances to me, and I recommended him to go to the president, Mr. Abernethy, which he did the next morning. Mr. Abernethy told him that his answer was perfectly right; but that since he had acquiesced in the judgment of the court by not appealing (and I even did not know at the time of that right of appeal), there was no remedy, and he was obliged to wait for being re-examined for three or six months. Mr. Abernethy added, that if he had appealed on the night before to the Court he would have taken care that, upon that point, he should not have been rejected."—*Lancet.*

CHLORIDE OF SODA IN FEVER.

The paper on this subject was read by Dr. Robert Graves, who spoke of the remedy in the following terms:—

The chloride of soda was first recommended in fever in 1827, by Dr. Robert Reid of this city, but had never been adopted by the profession, when I commenced a series of chemical experiments on its efficacy in 1832. Since that time I have employed it in many hundred cases of fever, and, on the whole, with satisfactory results. Many persons also, who have used it in the manner recommended, have expressed themselves in high terms of its utility. I have never given it in fever, except when the first stage is speedily followed by debility, and most commonly at a later period, when the well-known group of symptoms generally called typhus are present. In inflammatory fever, in simple, continued, or in nervous fever, I have never ordered this remedy: nor do I believe it to be of the least use in controlling the febrile excitement of ague or of hectic. Again, where fever is the consequence of some local inflammation, whether arising spontaneously or from an injury, the chloride of soda is quite inapplicable.

It is, in fact, only in that state of fever in which the disease may be termed simple, and where there are no local complications, that general remedial agents, such as the chloride of soda, can be employed. I was first induced to try the chloride of soda internally on an extensive scale, by the perusal of a very interesting pamphlet, written by Dr. Lawrence, the present archbishop of Cashel, a celebrated oriental scholar and an excellent chemist, published about three years ago, which may be strongly recommended to the notice of the profession. The mode in which I prescribe it is in doses of from fifteen to twenty drops every fourth hour, in an ounce of water or camphor mixture. How it acts I will not pretend to explain; it is sufficient to say, that there is no remedy from which, in such cases such unequivocal benefit is derived. It operates energetically, though not very rapidly, in controlling many of those symptoms which create most alarm. It seems to counteract the tendency to tympanitis, to correct the fœtor of the excretions, to prevent collapse, to promote a return to a healthy state of the functions of the skin, bowels, and kidneys; in fact it appears admirably calculated to meet most of the bad effects of low putrid fever. Of course it will fail, like all other remedies, when the disease has reached a certain point of intensity in individual cases. This, however, is no argument against the employment of a remedy of extensive utility and unquestionable value. This remedy has been extensively tried in fever by Chomel, with great success, and that excellent physican is still, I believe, engaged in making further clinical experiments on the subject. Dr. Dor, of Marseilles, has published several cases of typhus, in which the chloride of soda was found beneficial in 1833. We have in Dublin always adopted the precaution of diminishing, as soon as possible, the strength and frequency of the doses. It was never continued beyond six or seven days. Dr. William Stokes has also found it gradually but steadily remove all the bad symptoms, and in all cases the patients had most favorable

convalescences. The solution used was that which is generally considered to be a saturated solution. Wine, stimulants, and nutriment, were also given with it, according to the exigencies of the case.—*Lancet.*

MOTIONS AND SOUNDS OF THE HEART.

We pass over, for the present, the second paper, to notice the third, which was read by Dr. Harrison, and consisted of the Report of a Committee on the Motions and Sounds of the Heart. The formation of this Committee in Dublin was recommended by the British Association, and Dr. Macartney having been requested to select a number of gentlemen for that purpose, the gentlemen so appointed, whose names are signed to this report, acted on the committee, and attended at the experiments. The Committee met several times, and having considered the different opinion hitherto advanced on the subject, proceeded to institute a series of experiments, the subjects of which were generally young calves, in which animals the heart is sufficiently large to admit of the motions and sounds being accurately observed, while their early age is favorable to the prolongation of the experiment, as it has been ascertained that the vitality of the different organs is more enduring, and less influenced by injuries to the individual, in animals at a very early age, than in those of a maturer growth. The pulse varied in the subjects for experiment from 76 to 80 beats.

The animals were prepared in the following manner ;—a tube connected with a pair of bellows was inserted into the trachea, and the sensibility of the animals having been destroyed by a blow on the forehead, artificial respiration was commenced, by means of which the heart was enabled to continue its pulsations for a period varying in different subjects from one hour to two. Prussic acid, in a quantity sufficient to suspend sensibility, destroyed, in a few minutes, the motion in the heart. We have not now room to detail the experiments, but

The reporters conclude by saying :—From the experiments on the sounds of the heart it appears to follow :—1. That the sounds are not produced by the contact of the ventricles with the sternum or ribs, but are caused by motions within the heart and its vessels. 2. That the sternum and front of the thorax, by their contact with the ventricles, increase the audibleness of the sounds. 3. That the first sound is connected with the ventricular systole, and coincides with it in duration. 4. That the cause of the first sound is one which begins and ends with the ventricular systole, and is in constant operation during the continuance of that systole. 5. That it does not depend on the closing of the auriculo-ventricular valves at the commencement of the systole, because such movement of the valves takes place only at the commencement of the systole, and is of much shorter duration than the systole. 6. That it is not produced by the friction of the internal surfaces of the ventricles against each other, as such friction cannot exist until the blood has been expelled from the ventricles, whereas the first sound commences with the beginning of the ventricular systole. 7. That it is produced either by the rapid passage of the blood over the irregular internal surfaces of the ventricles on its way towards the mouths of the arteries or by the bruit musculaire of the ventricles, or probably by both these causes. 8. That the second sound coincides with the termination of the ventricular systole, and requires for its production the integrity of the semilunar valves of the aorta and pulmonary artery, and seems to be caused by the sudden check given by the action of these valves to the motion of the columns of blood driven towards the heart after each ventricular systole by the elasticity of the arterial trunks.

The Committee wish, in concluding this Report, to express their opinion, that although *much light* has been thrown on the subject of the motions and sounds of the heart, by

recent investigations, here and elsewhere, the nature of the inquiry is such as renders it difficult in many instances to arrive at satisfactory conclusions. They also think that the subject from its importance, whether in a practical view, or as an object of philosophical inquiry, is deserving of further investigation.

After the Report was concluded, Dr. Williams said he would state the results of his experiments on the subject. Some of the details mentioned by the Committee were confirmatory of these results, others not. His opinions, however, being already before the public, it must be sufficient here to state, that from his experiments he would conclude; 1st. That the first sound is not caused by a rush of blood into the arteries, as shown by several of the observations detailed. 2nd. That the first sound is not caused by the closing of the auriculo-ventricular valves, as shown by those observations in which it continued, though the closure of these valves was partially or completely prevented. 3rd. That the first sound is not produced by the collision of the particles of fluid in the ventricles. 4th. That the first sound is produced by muscular contraction. 5th. That the second sound is produced by the reaction of the arterial columns of blood tightening the semilunar valves at the ventricular systole. Dr. Williams referred to various observations on the foregoing experiments in proof of this view of the question. In illustration, he remarked, that if a fold of linen or of a handkerchief be suddenly tightened, a sound will be produced which may serve to explain the second sound. It is the sound produced by sudden motion with resistance. He had always argued, that as rapid muscular motion in any other situation will produce sound, there is no reason why the same thing should not also occur in the case of the heart. He thought that the action of the auriculo-ventricular valves and the cordæ tendineæ might have some share in the production of the first sound, but it depended chiefly on the contractile tenseness of the walls of the ventricles. With respect to M. Magendie's views, all that he could concede was, that in case of violent action of the heart, its strokes against the chest may constitute the termination of the second sound, forming a kind of knocking action; but in its ordinary and healthy state, the heart does not produce any sound by striking against the chest; its apex glides upwards over the smooth surface of the pericardium, producing an impulse but not a sound. Another error of M. Magendie was, that the sounds of the heart were louder when that organ was confined within the chest, as if the parietes of the latter acted as a kind of sounding board. If this were the case, and if the sound depended on the impulse against the side of the thorax the sound would be propagated all over the chest, according to a well-known law in acoustics, and would be as audible over any part of the back as over the cartilages of the sixth and seventh ribs.

With regard to the killing of animals for experiments, Dr. Williams said that the woorara poison suspends the sensibility of the nervous system, without acting on the irritability of the heart, and is much better adapted for such experiments than any other substance. As the next best substitute, Dr. Williams would recommend the essential oil of almonds. In his experiments, the heart continued to beat vigorously for more than half an hour after the extinction of animal life.

Mr. Dick, of Edinburgh, said he was highly gratified with the Report of the Committee but there were some circumstances in that report which did not accord with his experience. From experiments which he had made on horses, he was induced to think, that with regard to the precise time at which the first sound occurred, it was not during the contraction, but during the dilatation of the ventricle, and that it was the dilatation of the ventricle which produced the impulse. With respect to the second sound, he thought that it was produced by dilatation of the aorta, and this view of the question appeared to be confirmed by the experiment of Dr. Williams.

Dr. Green asked what facts Mr. Dick had to prove that the impulse of the heart was

caused by the dilatation of the ventricles. The Committee were prepared with proofs to show that the impulse accompanied their contraction.

Dr. Corrigan said, that a series of experiments performed by himself and Dr. Hunt, some years back, were among the first undertaken with the view of illustrating the points in question. The publication of his (Dr. Corrigan's) experiments attracted the attention of Dr. Hope, who instituted a series of experiments, the result of which went to contradict his experiments. These experiments of Dr. Hope were all said to have been verified by several eminent practitioners in London, and it was a curious fact, as showing the difficulties attendant on such observations, that the conclusions come to by the Dublin Committee, after a most patient and accurate examination, were totally different from those put forward by Dr. Hope, in the appendix to his work. There was also a remarkable discrepancy between the original and subsequent statements of Dr. Hope In the first publication of his experiments, the first sound of the heart was attributed to the friction produced between the particles of the blood and the inner surface of the ventricles; in the last edition of his work the first sound was said to be entirely independent of that friction. In his first paper, Dr. Hope's observations went to prove, that the second sound arose from the dilatation of the ventricles, and must be totally independent of the action of the valves; in his last report the second sound was said to depend altogether on the action of the semilunar valves. He mentioned these circumstances merely to show the difficulties which attended such observations. He believed that the question was not to be settled by experiments alone, but also by a careful attention to pathology, the best corrector of our observations. The statement of the Dublin Committee must be looked upon as perfectly unbiassed. With respect to the cause of the impulse of the heart, although the experiments made by him (Dr. C.) were supported by those made by Dr. W. Stokes, Dr. Hart, and M. Pigeaux, he had at present no hesitation in saying that on that point he was wrong. Finding the result of experiments on warm-blooded animals unsatisfactory, he had recourse to observations on the heart of the frog, with the view of determining this point. In this animal the impulse of the heart is during the diastole, and the process can be very satisfactorily seen, as, owing to the transparent nature of its tissues, the dilatation of the ventricle is plainly seen, by the change in its color, produced by the rush of blood into it. He had prepared the animal to show the heart in a state of perfect action. [Dr. Corrigan here exhibited the preparation; it showed very satisfactorily, that the whole body of the ventricle was raised and pushed forwards during the diastole.] With respect to the cause of the impulse, there was considerable difference between Dr. Williams and the Committee.

Dr. Williams. I stated that the impulse arose from the coming forward of the apex against the ribs.

Dr. Corrigan. The experiments of this Committee show, that the body of the heart has as much to do with it. Besides, there is a direct experiment to show, that the apex is very little concerned in producing the impulse. If you press your hands on the sides of the chest of a young ass, whose heart is remarkably conical and sharp at the apex, and the point of which hangs down towards the sternum, the impulse is felt strongly high up towards the shoulder and over a considerable space, where it could not possibly be produced by any action of the conical sharp-pointed apex. I come now to the sounds. I may observe here, that there is a great source of deception as connected with the point at which these sounds are heard. Among others, is the curious one made by Dr. Elliotson, who says, that the second sound is from the auricles, because it is heard higher up than the ventricles. When you listen to the sounds of the heart in the natural state, you hear a peculiar sound which you call the first. You then open the heart and hear a sound *like this*, but the question is, is it the first sound? In one of our experiments, to test

Magendie's statements, where a layer of air was interposed between the heart and the ribs, no sound was heard; the finger was then placed between the heart and the ribs so as to connect them, and the first sound was heard. Was this a sound produced by the stroke of the finger against the ribs, or was it the first sound? In an experiment of the Committee, where the ventricles were filled with fluid and then compressed, was the sound heard, a sound produced by the friction between the particles of blood in the ventricles, as first stated by Dr. Hope, or by the blood rushing over their rough surfaces, as stated by the Committee, or by the mere muscular contraction, as stated by Dr. Williams?

Dr. Williams stated, that Dr. Hope's opinion was, that the first sound was produced, in the first place, by the action of the auriculo-ventricular valves, next by the systole of the ventricle, and, lastly, by the bruit musculaire.

Dr. Corrigan said, that the first sound had been heard in the experiment in which the finger had been introduced into the ventricle.

Dr. Williams. Only part of the sound was heard, and this was the bruit musculaire.

Dr. Corrigan. I come now to the second sound. In the experiments made by Dr. Williams and the Committee, this sound is attributed to the action of the semilunar valves. I have stated before, that I believed it to be owing to the sudden coming together of the surface of the ventricles at the end of their contraction, and gave some experiments in proof of it. It is said this cannot occur; but I think it has been proved by the experiments of Mr. Carlile. In the frog, every particle of blood is expelled during the systole, and the sides come into close apposition; and if this occurs in a cold-blooded animal, it ought *a fortiori* to occur in the warm-blooded. I think there is no direct experiment as yet to determine this question. The Committee state, that in the experiment where one of the valves is confined, a rushing sound is heard; Dr. Williams heard a hissing sound. Might not the second sound still exist though masked by these sounds? If it be a physical sound, it ought to be produced by physical means. An experiment which I made some time back, goes, I think, to prove that the conclusions adopted on this point by the Committee require further investigation. Dr. Hunt and I, in our experiments, cut out from the heart of a donkey the ascending aorta with its valves; we tied the aorta on the end of a leaden tube of a corresponding diameter, and about five feet long. About two or three inches of the aorta then being free of the lower extremity of the tube, in this state holding the sides of the aorta together below, we filled the tube with water, and then placing the thumb on the upper end so as to close it, the fingers were withdrawn from the lower end, and the upper end still remaining closed, the external pressure of atmospheric air kept the two sides of the aorta below together, and no fluid escaped. The ear was then applied to the lower end of the tube, close to the aorta, and the thumb being suddenly withdrawn from above, the whole column of fluid came suddenly down, and distended the aorta and valves, and yet there was no sound whatever similar to the second produced. We attached to the end of the leaded tube a piece of sounding board to assist the ear, and the result was the same as before. There are some points on which I agree with the Committee, but with respect to the cause of the first and second sound of the heart, I do not think their experiments conclusive.

Dr. Greene on the part of the Committee begged leave to remark, in reply to Dr. Corrigan's supposition, "that in the case where the rushing sound was heard after the action of the semilunar valves was interrupted, this sound might have merely marked the second sound," that this could not be the case. By the second or rushing sound, the Committee meant the anormal sound, as distinguished from the second sound, which required for its production the integrity of the semilunar valves.

Much discussion followed, in which Dr. Carson of Liverpool, Dr. E. Kennedy, Mr. Hargrave, Mr. Carlile, and the original speakers, took part, but we have not space for more than the outline we have given, and we therefore conclude with stating, that

Dr. Alison observed, that there was a remarkable coincidence between the results of many of the experiments made here and in London. Both parties were very nearly agreed as to the motions and the cause of the second sound, and even with respect to the first they were partially agreed, as they had acknowledged the agency of the same cause in its production.—*Lancet.*

DIAPHRAGMATIC HERNIA.

Mr. Lawrence, during some clinical observations, directed the attention of the pupils who were present to a case not less singular as he said in its history than it proved rare in occurrence; it was that of diaphragmatic hernia, or where a portion of the contents of the abdomen, such as the intestines or omentum, was protruded through the diaphragm into the cavity of the chest. These were circumstances under which a just diagnosis was very difficult to be formed, from the impossibility of getting at the immediate seat of the disease; for although the concomitant symptoms of strangulation obtained, still there was wanting that proof so confirmatory of the existence of hernia, the external protrusion or swelling, cognizable alike by the taxis and the sight. The history of the case above alluded to was as follows, furnished by Dr. Norris, formerly a pupil of this hospital. The patient, a strong healthy man, after exerting himself to an unusual extent in walking a distance of twelve or thirteen miles, was attacked with sickness, retching, and pain, referable to the left side, under the cartilages of the ribs; his pulse was frequent and hard, and there were general symptoms of fever, accompanied by difficulty of breathing. On examination Dr. Norris discovered that there existed little or no respiratory murmur on the left side of the thorax, and that the pulsation of the heart was not audible in its normal situation, but was heard to beat on the right side of the chest. Notwithstanding several remedies which were employed, all the unfavorable symptoms became aggravated; tension of the belly, increased pain, a higher state of fever, and great restlessness, were but the precursors of the more formidable signs of approaching dissolution. Hiccough, cold sweats, and spasmodic rigors, in a few days ended the tragedy. At the examination after death the following appearances prevailed: on opening the abdominal cavity no omentum whatever could be discovered, and the intestines were distended with flatus and presented various stages of inflammation; on endeavoring to trace the course of the colon, its descending portion was found wanting; a small hole, however, was seen penetrating the substance of the diaphragm at its posterior part near its spinous origin, through which the intestines might be traced. On removing the sternum the extraordinary contents of the left pleural cavity became discernible, consisting of a large portion of intestines, the whole of the omentum, a great portion of the spleen, and the entire pancreas,—so completely occupying the left side of the chest, that the lung was compressed to the size of a man's fist, and the heart and mediastinum were pushed towards the right side, as frequently obtains in empyema occupying one cavity of the pleura, where, in the same manner, by pressure, the lung becomes consolidated by the obliteration of its air-cells, or, in other language, is carnified, and the heart is likewise displaced. This hernia did not appear to be an actual rupture through the substance of the muscular septum, occasioned by any sudden and violent compression of the abdominal viscera, because the protruding parts were not enveloped in a sac. They had not carried through the opening an investment of peritoneum, and the edges of the wound through which they had egressed were quite smooth and round, apparently formed by a continuation or junction of the two serous membranes which composed its upper and

under surfaces. This circumstance Mr. Lawrence observed would lead one to conclude that the communication between the two cavities was of congenital formation, though he should imagine that the displacement of the abdominal viscera had existed but recently, in consequence of the violent exertion the poor fellow had made during his unusually protracted walk. Mr. L. again alluded to the difficulty of diagnosis in this case, though, he remarked, fixed pain of the side, the change of situation of the heart, and the arrested respiration in the left side might perhaps have led to a conjecture of the nature of the disease. A preparation, showing the parts as removed by Dr. Norris, was then exhibited, and sent round for the inspection of the students.—*Lancet.*

From the London Medical Gazette.

ANOMALOUS CASE OF PREGNANCY IN A SYPHILITIC PATIENT.

Discharge of Fœtal Bones by the Rectum.

Sir,—Allow me to present for your consideration a brief outline of a remarkable case which came under my notice a few months ago. I have never met with a similar instance, nor have any of my professional acquaintances to whom I have mentioned it. Should you consider it worth recording, you will probably give it an early insertion in your respectable journal.—I am, sir, your obedient servant, JOHN ARMSTRONG, M.R.C.S.

Gravesend, March 25, 1835.

Mrs. M., ætat. 32, has been for upwards of eight years suffering from secondary and ternary syphilitic symptoms, and at different times has been obliged to seek relief at the Borough and Bartholomew's Hospitals. About two years and a half ago she supposed herself pregnant, and a respectable practitioner whom she consulted confirmed that opinion. When in the sixth month of utero-gestation, according to her calculation, symptoms of labor occurred. A medical man being called in, stated that he could distinctly feel the fœtal head presenting, and that the os uteri was slightly dilated. After a short time the pains began to be less violent, and not so frequent, and soon ceased altogether. Next day she was in her usual health, and able to resume her ordinary avocations.

About two months after this she suffered from pain and tenderness in the right side which were relieved by leeches and purgatives, &c. The "full period" having now arrived, and there being no symptoms of labor, people began to say that doctors and patient must have made a slight mistake. However, the bowels became much disordered; frequent bloody and mucous stools, and two bones which were stated to be like the femorals of a fœtus, were discharged per anum. Her general health began to suffer considerably, and several portions of bone were thrown off from the cranium. She again sought admission into one of the borough hospitals, and was discharged, having received very little benefit.

These are almost all the materials I have been able to glean of this interesting case, up to the period when she came under my care, which is about two years from the commencement of her supposed pregnancy. She complained of severe nocturnal pains, arising from nodes on each arm and clavicle. There were several openings in the scalp, with diseased bone at the bottom; and the superior maxillary and palate bones extensively affected. The abdomen was large, with a hard tumor in the uterine region. Lower limbs œdematous; bowels relaxed; and at the termination of every three weeks she states that considerable quantities of blood are discharged. Has never menstruated since the period of her supposed pregnancy; her appetite is tolerable; her pulse feeble and quick. On examination per vaginam, I could not discover the os uteri, but an exceedingly hard, round

mass, remarkably tender. By endeavoring to press the uterus from above with my right hand, while I kept the two first fingers of the left firmly against it below, I thought I could discover some substance within the uterus. The patient complained very much, and I considered it better to discontinue my examination to some future period. That period never arrived; for soon after the œdema increased considerably, especially about the external parts of generation, accompanied with so much tenderness, than I could not think of a second trial. Evident sense of fluctuation in the peritoneal sac was at this period perceptible. It is unnecessary to detail the treatment; she was sometimes relieved, and as often the contrary.

Again two friends prevailed on her to enter one of the hospitals; and with considerable difficulty she was conveyed to London, and placed under Dr. Elliotson. She returned after a few weeks much weaker, complaining bitterly of her mouth, throat, and nates, which were highly inflamed, and covered with aphthæ and ulcerations; incessant purging of a greenish watery matter, so exceedingly offensive that scarcely any nurse could be prevailed upon to assist her. In a few days the greater part of the superior maxillary bone and teeth dropped out. She continued to sink; the difficulty of swallowing increased; purging incessant; pulse feeble; and death gradually terminated her sufferings on the 2d of July, 1834, about two and a half years from the period of her conception.

As most of your readers are already acquainted with the appearances of diseased bone I shall only detail the post-mortem state of the abdomen generally. The peritoneal sac contained little fluid. Liver, spleen, and pancreas, normal; mucous lining of the intestinal tube vascular, easily separated, with several ulcerations. The omentum was adherent to the fundus vesicæ; on separating them, the uterus came into view, of a round, globular form, having the rectum on its right side. By gently separating them a communication was found between the uterus and rectum. Both were of a dark green color, and tore with the slightest effort. On opening the uterus, the remains of a fœtus were discovered in a state of great putridity; it seemed to have arrived at about the sixth month when vitality was destroyed. The bones were all loose, and could be removed with ease. The cranial bones were separated. The spinal column alone seemed held together by something resembling integument, which extended along the spinous processes. All other traces of structure were lost: muscle and viscus were alike indiscernible; the ligaments alone seemed to exist in a slight degree. The uterus was in a gangrenous state; its walls thinned, and lacerable with a slight effort; the internal surface covered with pus. In the lowest part there was a collection of pus and greenish fluid, resembling the discharges from the bowels previous to death. The os uteri was entirely obliterated. The ovaria and lateral ligaments were distinctly traceable.

It is unnecessary to offer any remarks on this extraordinary case, as they must immediately present themselves to every reflecting mind. I shall merely add, that the gentleman who attended when symptoms of labor set in, had for several years practised midwifery: and the other gentleman, who first pronounced her pregnant, and continued to hold that opinion to the last, is a gentleman of no ordinary acuteness and intelligence; a character fully confirmed by the opinion given in this case.

MEDICINE IN EGYPT.

Clot-Bey writes from Cairo, under the date of the 21st of January last, that he had just obtained permission from the government to apply the mosque of Moristan to the purposes of an anatomical theatre. "Is not this a step?" he continues; "you see we have succeeded in connecting anatomy with the very religion that was most opposed to it."

But the only subjects yet demonstrated seemed to have been a skeleton and some of Dr. Azoux's models. The plague, he adds, continued its ravages at Alexandria, but not to any alarming extent: not above five or six cases occurred daily, and these almost invariably among the poorest, filthiest, and worst-lodged class of the population. Certain districts, too, seemed to be more liable to it than others. No precautions had been taken by the authorities to prevent the spread of the disease, yet no case had been heard of out of Alexandria. M. Clot himself appears to be strongly disposed to consider the plague as not contagious.—*London Medical Gazette.*

From the Lancet.

UNION OF DISSIMILAR BODIES.—ELECTRO CHEMICAL THEORY.

Sir,—The beautiful theory advanced by Sir H. Davy to account for chemical affinity, by ascribing it to electrical agency, has many supporters, because it is a theory founded on extensive observation and numerous facts. It supplies chemists with a principle capable of accounting for the phenomena ascribed to affinity, and affords a consistent explanation of the chemical agencies of the voltaic apparatus. Dr. Turner briefly embodies the substance of the theory as follows:—"'What chemists term 'chemical attraction,' or 'affinity,' is, under this point of view, an electrical force arising from particles of a different kind, attracting each other in consequence of being in opposite states of electrical excitement. Bodies which have a disposition to unite, assume opposite electrical conditions when brought into contact, and the very existence of the compound depends on its elements retaining their state of excitement.

Now granting the validity of this opinion, still there is a residual phenomenon to be accounted for, viz., the reason why substances of different kinds assume opposite electrical states when brought into contact. Judging from analogy, I think that a reasonable explanation can be found, by supposing particles of different substances to possess a different capacity for electricity, or a different specific electricity. We know that bodies have different capacities for heat. Thus we know that mercury at the temperature of 212 degrees contains a very different quantity of heat from that of an equal weight of water at a similar temperature; and it is a legitimate inference, in perfect conformity with the laws of induction, to assume that bodies also have different specific electricities; that two substances of different kinds, placed under such circumstances that each has an equal opportunity of parting with or retaining its electricity, and will contain,—when an equilibrium is established between each of them and the atmosphere and surrounding objects,—and consequently, between each other, also,—different quantities of electricity. Now we know, that if two bodies of a similar nature (say two pith balls) contain dissimilar quantities of electricity, they will attract each other, the one containing the greatest charge being positive with regard to the other; and we may infer, that if two different bodies, such as potassium and oxygen, assume, the one a positive, and the other a negative electricity, when brought into contact (a proposition necessary for the support of Sir H. Davy's theory), that the potassium which becomes positive, contains more electricity than the oxygen which becomes negative. If so,—if this obtain when they are both placed under similar circumstances—both at an equilibrium of electricity,—they must have different capacities for electricity; so that the inference of different capacities for electricity is I think, full as clear as that the inference of the attractive force or affinity is dependent on electricity. This theory will account for some bodies having a disposition to unite, others evincing no such disposition at all, &c. Thus, the two pith balls, oppositely electrified, in consequence of the one containing an excess, and the other

a deficiency, or at least a smaller quantity of electricity, stand in the relation of two dissimilar substances having different specific electricities, and consequently, different quantities. And, in like manner, they possess an attraction for each other, but no sooner do they touch each other, than an equilibrium of electricity is established, and they are no longer in the same relative condition, inasmuch as each now contains the same quantum of electricity as the other, having similar specific electricities. Thus, therefore, they no longer have an attraction for each other. This is very different with regard to oxygen and potassium, which bodies, when brought into contact, powerfully attract each other, and *then* still maintain each its different specific electricity. Consequently their mutual attraction continues. Hence the reason why the elements of a chemical compound retain their respective states of excitement, upon which the very existence of the compound depends.

Substances which in their natural condition not only have no attraction or affinity for each other, but mutually repel each other (if any such actually exist), should accordingly be considered as possessing like specific electricities; and the disparity in the force of attraction depends, according to this view, on the disparity or the capacity for electricity. To illustrate this by an example, we may consider that the disparity between the specific electricity of oxygen and potassium is so great, that they unite the moment they are brought within the reach of each other. Then the disparity in the specific electricities of oxygen and hydrogen we may consider as less than that between the two former, and that therefore they do not unite when brought simply into contact. But they do not repel each other, therefore they do not possess equal specific electricities, so that by making the disparity more apparent (which is done by giving each a higher charge, as when an electric spark is passed through them), they do attract each other and unite. Once united, their natural disparity in electrical capacity suffices to hold them in union; so that we may consider that the difficulty of union of substances, and the quantity of additional electrical excitement required to make them combine, is a measure of the difference of their specific electricities. This theory will account also for a substance evincing one kind of electrical excitement when about to combine with one substance, and the opposite state when about to combine with another. Thus according to this view, sulphur possesses a greater specific electricity than oxygen, and a less specific electricity than mercury, and is, consequently, positive with regard to oxygen, and negative in relation to mercury. I am, Sir, your obedient servant,

EDWARD B. WALFORD.

26, Woburn Place, Aug. 11, 1835.

Abstract of the Evidence of Members of the Royal College of Surgeons in London, taken before the Parliamentary Medical Committee, 1834.

We refer to the following evidence as to that of a gentleman whose replies to the committee are likely to be looked for and perused with particular interest, for in the whole profession there is not a man whose feelings towards the practitioners of the medical art are based upon better principles, or have been adhered to, through a long and most extensive intercourse, with greater firmness and integrity. The opinions of Mr. Wardrop on the government of the profession are liberal in the widest and purest sense of that word, and such as become a man who has paid great attention to the claims of the science, the just demands of its followers, and the necessities of the public. These circumstances will be made quite evident to the reader, although Mr. Wardrop refrained, in the then-existing state of the inquiry, from offering to the Committee any details for the future government of the profession. The surgeons in general practice will see that in Mr. Wardrop,

in whom they have so long had one of the ablest coadjutors in the consultation room, they have here one of the warmest public friends.

Evidence of James Wardrop.

509. You are a Member of the Royal Colleges of Surgeons, both of London and of Edinburgh; a Fellow of the Royal Society of Edinburgh; and were surgeon to his late Majesty, and, lately, a lecturer on surgery?"—"Yes."

509*. "Where did you receive your professional education?"—"At Edinburgh, at London, at Paris, and at Vienna."

510. When did you become a member of the College of Surgeons of Edinburgh?"—"At the age of twenty-two."

511. "Have you graduated?"—"Yes."

512. "When did you come to London?"—"About six years after that period."

513. "Did you practise at Edinburgh?"—"I did for six years."

514. "Did you hold any office in the Edinburgh College of Surgeons?"—"I was an examinator, and curator of the museum."

515. "What was your age when you were an examinator of that College?"—"Twenty-four."

516. "And your standing in the profession?"—"Two years."

517. "Were seniors associated with juniors, as examinators, in that College?"—"The board consisted of six. Two juniors, two seniors, and two middlemen in point of age,—thus divided on a principle of convenience and propriety."

518. "What was the nature and scope of the examination?"—"The duty of the examinator was considered to be, to satisfy himself and those around him of the fitness of the individual, by the knowledge evinced in the answers given to appropriate questions."

519. "Did the questions comprehend most of the subjects in the course now shown to you?"—"I conceive myself entitled to examine, and I was in the habit of examining, upon every one of those subjects."

520. "Might the practice of conjoining junior examiners with senior be advantageously introduced into the London College of Surgeons?"—"I think so."

521. "For attending examinations once a week, for five or six hours at a time, what would be, for a junior surgeon, a reasonable remuneration?"—"It is difficult to say, but they ought to be well paid, at the same time not making the remuneration the sole motive for accepting the appointment, but partly the honor and credit attached to it."

522. "How long have you been in practice in London?"—"Twenty-two years."

523. "To what branch has your attention been more particularly devoted."—"It has not been devoted to any particular part. My mind has been occupied in studying the whole of what has been called medical science.

525. "As surgeon to his late Majesty, did you receive any remuneration?"—"I did, I received 1000*l.*"

525. "How long were you surgeon?"—"I was one of the surgeons extraordinary for about eight or ten years, and surgeon 'to the Person' during the last three or four years of his Majesty's life."

526. "Can you define the boundary which separates the practice of the physician from that of the surgeon; and of the physician and surgeon from that of the general practitioner?"—"The general practitioner is a man who is supposed to possess the knowledge both of the physician and the surgeon; and he ought to possess it from the nature of his avocations.

527. "Is not a very large share of the surgeon's practice of a medical nature?"—"Almost the whole of it. I believe the number of operations that are performed, or at least are performed with success (and the success measures the propriety of performing them) are very few. The great business of the surgeon is, to prevent diseases going to that length which requires an operation.

528. "If no defined line of separation can be drawn between the two departments of practice, upon what well-founded distinctions have separate colleges been established for medicine and surgery?"—"I believe there is no real distinction; and the division leads to a great deal of bad feeling amongst the members of the different colleges. Cases are constantly occurring, in which disputes arise upon points of professional etiquette; and there is no printed authority to refer to, to know who is right."

529. "Is it not desirable that both physicians and surgeons should confine or extend their practice as they please?"—"No doubt of it, for the public interests; although it may not be so for the interests of some individuals. There are associations or cliques of medical men, the same as in other trades, who, by associating with each other, contrive to make employment for one another; wherefore a patient, instead of being attended by one competent medical man, is attended by a surgeon, a physician, and an apothecary; so that three advisers are paid, instead of one."

530. "On the whole, should you say that the most highly instructed surgeons in general practice in this country, as a class, from the precision of the knowledge they are compelled to acquire of the healthy and morbid structure and functions of the human body, are better calculated to throw light upon medicine than the most highly educated physicians?"—"They are, because it is quite necessary for a surgeon to know physic, but it is not necessary for a physician to know surgery.

531. "Then you are not of opinion that the physician can be a safe practitioner who has not an intimate knowledge of surgery?"—"By no means."

532. "In the course of your practice, are you in the habit of meeting physicians in consultation upon strictly medical cases?"—"At one time or another I have met in consultation almost all the physicians and surgeons of eminence in London: and I have often met physicians on surgical cases, and surgeons on medical cases."

533. "You would not expect, now-a-days, a physician to object to consult with you on a purely medical case, because you are a surgeon?"—"Certainly not; unless perhaps the case was of such notoriety that he would be afraid of being exposed to his own body of collegiate fellows; but that never happened to myself."

534. "In your time at Edinburgh, had most of the candidates for the diploma of the Edinburgh College of Surgeons, received a preliminary education?"—"Every one almost. Preliminary education, in Scotland, is much more easily acquired than in most other parts of Europe; and, therefore, people of a very humble grade in life receive all the advantages of an education which cannot be acquired in England except by persons of much higher station in society."

535. "Have the generality of the young men who apply for the London diploma, received a reasonably good preliminary education?"—"A great number of them, I fear, are very deficient. I have an impression that that arises, in many instances, from young men being compelled to serve an apprenticeship in druggists' shops, where they have no opportunity of attending to their education. In Edinburgh, where there are many young men bound apprentices, they at the same time attend the different classes of the University."

536. Do you approve of the curriculum of study required by the London College of Surgeons?"—"Its chief defect, as it has always appeared to me, is, that as the diploma of the College of Surgeons is not given to a man who practises surgery only, but who is to

practise physic as well as surgery, the medical part of the curriculum is not sufficiently comprehensive.

537. "Do you think that the Council of the London College of Surgeons is so constituted as to be liable to the imputation of making rules, or deciding cases, out of regard to the personal interests of some of its own members?"—"It appears to me that the whole of the regulations have been framed, on purpose to serve the private interests of a large portion of the individuals who framed them."

538. "What is the scale of hospital which you would fix upon as the minimum which the College ought to recognize?"—"Those who are best able to judge, and who have no personal interest in forming an opinion on the matter, have thought, that the fewer subjects the student had before him to contemplate, the more likely he would be to become master of the cases; and, therefore, that the large institutions were less likely than small ones to answer the purposes of education. Richter of Goettingen, who was considered the first surgeon that Germany ever produced, had only fifteen beds in his hospital.* I am aware of the common opinion, that experience, as it is called, over an extensive field of observation, is to be preferred to a smaller field. But it is not so, in my humble opinion, with regard to the *students* of medicine. In after-life, a man who has learned the *rudiments* of his profession, may select from a large field the particular case that he may wish to contemplate at one time, with great effect. At Edinburgh they act upon that principle. They select out of the whole mass of sick in their infirmary only a few individual cases which are put into the clinical wards."

539 "Do you concur in the following opinion, expressed by Mr. Lawrence in 1826? After mentioning the name of Scarpa, Mr. Lawrence says; 'The hospital which has enabled him to render these important services to our science, contains, I believe, about twenty beds. Richter, the contemporary of Haller in the University of Goettingen, celebrated throughout Europe for his judgment and practical skill, as well as for the clearness and good sense of his writings, had an hospital of fifteen beds. The same institution, now under the care of Professor Langenbeck, an accomplished anatomist and very dexterous operator, does not contain more than twenty-five beds. The medical clinic in the general hospital at Vienna consisted of two wards, each containing twelve beds; and that of the illustrious J. P. Frank, at Pavia, did not contain more than twenty. The surgical clinic at Vienna consists of fourteen beds, eight for males, and six for females; and that for diseases of the eye, of twenty-four. Thus, gentlemen, the great men whom I have cited (and the annals of our profession contain no names more deservedly venerated than those of Richter, Scarpa, Von Hildenbrand, Frank, and Beer), instead of estimating the advantage of the student in a direct ratio to the number of patients submitted to his observation, have considered it most conducive to his instruction to limit his attention to a few cases; making each of these a study, carefully investigating the history, symptoms, and causes, showing the nature and seat of the affection, and the changes produced in the suffering organs, pointing out the distinctions, and the probable course and termination of the disorder; and then explaining the principle of treatment, whether by diet, medicine, or gen-

* The following is an extract from Richter's Medical and Surgical Observations; "There are only fifteen beds in the public hospital of this place (Goettingen), and I do not wish for more. I have permission and the opportunity to choose my patients, and of course I make choice of such cases as promise to be more particularly important and instructive. Indeed I do not think that the experienced practitioner is formed by the number of patients. Experience is the result, not of seeing merely, but of reflecting. It is not eating alone, but digestion, that gives strength. A physician who tells us that he visits 150 and even a greater number of sick people daily, has, in my opinion, so little pretensions to the title of an experienced practitioner, that I would even deny he had any experience at all. Truly, nature is not so complaisant, that she will unveil herself at once to whoever will merely cast his eyes upon her."

eral management."—"I perfectly accord with those opinions, which, in fact, I had often canvassed with Mr. Lawrence, previously to his delivering them publicly."

540. "And therefore, in your opinion, any limitation of the scale of hospitals entitled to recognition by a medical board, requiring them to have at least 100 beds, is not a judicious limitation?"—"No more than I should conceive it would be judicious to have a law, that no man should be accounted learned, who should study in a library that contained less than a certain number of books."

541. "You think, then, that if a surgeon were to set on foot an hospital containing twenty patients, and were to direct the student's particular attention to all the circumstances of each case, as Richter did at Goettingen, such an hospital ought, above all others, to meet with recognition from the Council?"—"I should think it the best possible institution for the education of students in medicine."

542. "Ought lecturers, or hospital surgeons who have a class of pupils at an hospital, to be eligible as members of the Court of Examiners; considering that they would have to examine their own pupils, or those of rival teachers; or at least to vote on their being allowed to pass?"—"As a general rule, I should think, that no teacher ought to be an examiner; but there might possibly be some exceptions."

543. "Considering that by far the greater number of the members of the College of Surgeons are general practitioners, is it reasonable to exclude them from the government of their own College?"—"I do not consider it reasonable."

544. "What is your standing as a member of the London College?"—"About twenty years."

545. "Do you believe that members of the College have been passed over by the Council, and thereby for ever excluded from the Council, simply for expressing opinions in disapprobation of the existing constitution of the Council?"—"I have reason to believe so."

546. "Have you reason to believe that you have been passed over by the Council?"—"I have, and also that Mr. Lawrence was elected into the Council by a majority of only one, and was therefore within an ace of being passed over."

547. "Did not you and Mr. Lawrence in 1826 express strong opinions against the regulations of the Council, and against its existing constitution; and did not both of you, in the same year, take an active part in the discussions of these matters at the meetings which were held of the members of the College?"—"We did."

548. "Were you ever surgeon to any hospital in London?"—"I was surgeon to the Hospital of Surgery in Panton Square, which was founded on the model of those hospitals in foreign countries that have been just alluded to."

549. "Was that hospital recognised by the College?"—"No, the hospital was founded upon principles, in most respects, quite opposite to that of the other hospitals, members of the medical profession having access to it without the payment of any fee. I did not take any pupils, and therefore had no wish that it should be recognised. It was supported by subscription, and instituted for the advancement of medical knowledge. I was also anxious to have the opportunity of proving the great advantages which the sick poor might derive from small institutions, as well as the much greater extent of benefit which, by comparison, the donations of the charitable were by them enabled to perform. Great benefit also was derived by this hospital being thrown open to the profession; all our public institutions being closed, unless on the payment of exorbitant fees. It was opened in 1824, and closed in 1831."

550. "What, on the average, was the monthly expense of each patient?"—"The expense of an inpatient did not exceed one shilling a day. The out-patients provided themselves with medicines, and care was taken to prescribe for them in as economical a form

as possible. It was often remarked by patients who had formerly attended dispensaries that they were frequently kept waiting for the medicines so long, that they preferred paying for them, their time being of greater value. *500l.* a year was quite ample to sustain the institution on the scale and for the purposes for which it was originally intended. There was a housekeeper and one servant maid. Attention was paid to the arrangement of the patients in each room, so that if one was in a helpless condition, the other was capable of affording him assistance when in need; and those who had to undergo any severe operation, had usually some relative who attended and nursed them, from which arrangement the sufferers found the greatest comfort, and the charity was enabled, with its limited means, greatly to extend its objects. A house surgeon, who lived adjoining to the hospital was the only officer in constant attendance."

551. "What means did you take to provide the hospital with cases?"—"I had long been in the habit of giving advice to the sick poor at my own dwelling. These I afterwards received at the hospital, where they were admitted without any recommendation but their bodily afflictions. Moreover, the circumstance of the institution being open to the medical profession, and weekly meetings being held in the operation room, the numerous visiters took every opportunity of bringing cases of peculiar interest, and hence more examples of remarkable diseases presented themselves at this small institution than perhaps at some of the large hospitals."

552. "Does nepotism prevail in the different London hospitals?"—"To a very considerable extent, I believe. I should think you would find, if you go over the list of the surgeons of the hospitals of London, that a considerable portion of them are, either immediately or more distantly, related to some one or other of the medical officers who have preceded them."

553. "What changes should be made in the Boards which examine candidates for practice in the profession?"—"There is evidently great room for improvement."

554. "Should there be one general board to examine all candidates for practice, and grant medical degrees?"—"It would be infinitely better than the present system."

555. "How many years of study will render a man competent to practise surgery?"—"A man ought to begin to practise his profession at the age of twenty-one. His medical studies ought to be commenced very early,—combined with his general studies,—not requiring a man to have completed a certain course of literary and philosophical study before he begins his medical pursuits. A great deal of the drudgery of medicine can be learned best in youth, such as that of dissection, and of practical chemistry and pharmacy. At an early period of life these things can be acquired with much more facility than a knowledge of moral and natural philosophy."

556. "Should there be one or two grades in the profession?"—"I do not like a difference of grades; it often creates injustice, and always a great deal of dissension amongst mankind, and it leads to no public good that I am aware of. It should rest with the public to confer whatever distinction it pleases, and the public will always judge of men by the quantity of their brains and their moral conduct."

557. "Are there many London surgeons who have distinguished themselves by their writings on, and their mode of treating, diseases of the eye?"—"There are several."

558. "Are the public disposed to place more confidence in regular surgeons who have made eye-surgery their study than in persons who are mere oculists?"—"I believe they are."

559. "Is a surgeon who acquires reputation in the practice of eye-surgery liable to

suffer in estimation from an apprehension that because he is skilled in that department he must be less skilful as a general surgeon?"—"I have no reason to think so."

560. "Then why should that objection lie to a combination of the surgery of the uterus or midwifery with general surgery?"—"I am not aware that such an objection exists."

561. "Is the education less good in Scotland in consequence of being less expensive?"—"I think it is better: the best masters I have ever had have been the cheapest."

562. "Whatever changes may be made in the laws or usages of the medical profession, if those changes are to be productive of any good, will it not be essential to take care that the expense of good medical instruction is kept low?"—"Decidedly. If a man have any reputation as a teacher in any of the great towns, London, Dublin, or Edinburgh, he can get a very handsome income, though the students pay him only a very moderate fee. The fees, I think, are much too high in this metropolis. They are higher in proportion to the value of money, or of other commodities, than in the north."

563. "Ought the state to punish irregular practitioners for practising, or only for assuming a professional title?"—"From our knowledge of mankind upon the subject of quackery, I do not think that any legislative enactment can be of the least service. The best educated men, the best men in society, are the greatest patrons of quackery. My own impression is, that all attempts to prevent quackery rather tend to make it of more importance. As for punishing the unqualified man for practising under the assumed title of a qualified man, the name is of no importance. I think the legislature would do much more good by rendering medical education more accessible to students who have little money to bestow on it, and thus provide that numerous portion of the public who cannot afford to pay dearly for medical advice with a better class of medical practitioners. That is the best and most effectual means of meeting the irregular practitioner."

EPILEPSY ACCOMPANIED BY DELIRIUM.

North London Hospital.

John Fritter, painter, aged 30, was admitted, August 5th, under the care of Dr. Ellinson. He was brought into the hospital in a state of insensibility, like that following epilepsy. The account given of him by his companion was, that as he was painting in the morning, he suddenly screamed out and fell down. He struggled considerably for a time, but did not foam at the mouth. He has not been sensible since. For several days before this he had complained of a good deal of pain in the head. He was left during the day without anything being done for him, in the expectation that sensibility would voluntarily return, but on finding the insensibility continuous, Mr. Taylor, the apothecary, examined his head and discovered it to be very hot. The pupils were somewhat contracted; the pulse was not quickened. The man had been going about the ward in the after part of the day, without appearing to be conscious of anything, and it required considerable force to restrain him from acts of violence. He was bled to sixteen ounces, and a short time after, as there was no alleviation of the symptoms, twenty leeches were applied to the temples, and the head was shaved, and cold water was applied to it. An enema was also administered, with ten grains of calomel, and repeated at bed-time. The blood was not buffed, but it came away rather slowly.

6. He continues nearly in the same state. It is necessary to confine him with a straitwaistcoat. He seems to have rather more sense of what is going on around, but is still delirious. He talks wildly, but can answer some questions correctly. The medicine

ordered last night could not be given to him. His bowels have not been opened. To be bled again to sixteen ounces, and to have two drops of croton oil in a draught.

6. Since about five A.M. he has been quite sensible. The draught has purged him freely several times. The blood is strongly buffed and cupped, and he has now no pain in the head, which is also quite cool; tongue rather white; pulse natural. Has no recollection whatever of what took place. Remembers going to work on the morning of the 4th, but nothing since. Does not recollect having any pain in the head before the attack. Had never experienced any fit before, nor had any of his family, to his knowledge. Has lived well, but not intemperately. Lost his wife about three months ago, but does not think that that had any influence in producing this attack.

11. Has been improving. Since discharged well.

Dr. Elliotson considered this as an interesting case, not so much from the treatment employed, as from its presenting a particular form of the disease. He had yesterday seen a gentleman from the country who was occasionally seized, as he walked along, with a momentary giddiness, without loss of consciousness, a sinking at the pit of the stomach, and a gasping for breath. In a minute or two he quite recovered himself. No convulsion accompanied these attacks, yet he had little doubt that they were epileptic. Attacks of this kind were known to be epileptic, from convulsions coming on afterwards, or regular attacks of epilepsy ensuing between them. Dr. Elliotson was acquainted with the case of a lady who had frequent fainting fits, unaccompanied by convulsions. Her head had some time since been drawn aside by an attack of paralysis. She died three weeks since. On examining her brain, a small tumor, partly of the encephaloid character, partly cheesy and partly earthy, was found situated at the anterior extremity of the floor of the third ventricle. There was little doubt it had existed there for many years. He believed that organic disease of any portion of the brain might cause epilepsy. He could not believe it to be confined to one particular part, as did some persons.

OPIUM EATING.

The following particulars respecting the baneful effects of indulging in the intoxication of opium are gathered from the history of a patient, now in the North London Hospital, under Dr. A. T. Thomson, for phthisis pulmonalis.

Elizabeth Marden, aged 35, was admitted May 26th. About seventeen years ago she began to suffer from a pain in the right iliac region, for which a medical gentleman ordered her to take ten drops of laudanum, night and morning. This was gradually increased, the pain continuing, until at last she took three teaspoonfuls every four hours, night and day.

At first the ten drops relieved the pain, but it was found necessary to increase the dose to produce the same effect. So that the three teaspoonfuls at last did not produce so much relief as did the ten drops at first. The effect of the small doses was simply to produce a relief from the pain, without exerting any other particular influence on the body or mind. As the dose was increased, however, she found it produce a very comfortable condition of the mind. She felt lively and cheerful, and was capable of doing any quantity of work; it also produced a sense of warmth over the whole body. She had severe family afflictions, but was not at all distressed by them whilst under the influence of opium though she felt them severely at other times. If she passed over the usual time for taking a dose, she felt the most distressing sensations about the joints, not of pain, but such as she is unable to describe. She suffered involuntary motions of the arms, fingers, and toes; numbness in the limbs and body generally; profuse perspiration, nausea, vomiting and loss of appetite, a saline taste in the saliva, and a bad taste in the mouth; tremor in the

limbs; great sense of debility and lassitude; the memory and mental powers generally became greatly impaired, attended by a miserable depression of the spirits. These symptoms were all relieved by a repetition of the dose. The opium also produced constipation, not more than one motion occurring in a week, and she does not recollect whether that was procured by medicine or not. If the dose was deferred, she had always severe headache. Her sense of smell was so much impaired that she could perceive no pungency in snuff; her taste was so much lost that she could not distinguish pepper or mustard; and her hearing was become so deficient that she could hardly detect the voice of any one who spoke; yet her own voice sounded most disagreeably loud to her. Her touch was so much affected that she could not execute any needle-work. The acuteness of all her senses was restored by the usual dose, the want of which was indicated by flushing and heat of the face. During the period of taking the opium she had very little sleep, and in the intervals she could not attempt to sleep from want of the desire, so that she generally worked all night. What sleep she had was generally in the daytime, and that little was much confused and easily ended. About five or six years ago her resources being exhausted, she obtained admission into Guy's Hospital. Her laudanum here was left off for the first three days, and all the above symptoms continued; also now, for the first time, she appeared to see the most frightful animals and other objects in the ward. The symptoms were again relieved by her usual doses. Her doses were left off, however, and medicines were given her thrice a day, containing camphor and a diminished quantity of laudanum, but how much she cannot say, with about a bottle and a half of port-wine daily. She took these for three entire months before the symptoms began to abate, with other cordial medicines and wine to the end of the fourth month, when she left the hospital. The laudanum was being decreased during the whole time, and when she left the hospital she took a teaspoonful in the course of the day. On returning home, and being dependent on her friends, she was obliged to discontinue the laudanum and wine, and was even unable to get beer. She was now more miserable than before, all the symptoms returning with increased severity, and for the first six months she was almost entirely helpless. She was then first affected with pain in her chest, and a cough, which has continued ever since. She was twelve months at home before the above distressing symptoms disappeared. The only consequences of her opium eating at present are, a very much impaired taste, numbness of the limbs, coldness of the feet, inability to walk far without aching pains in the limbs, and a general sense of lassitude.

In making some remarks on opium eating, Dr. Elliotson observed that he had never before seen a case in which opium had been discontinued. It was unquestionably the most fascinating of all intoxicating agents, the ecstasies produced on the mind by it being more entrancing than those produced by wine. Wine seemed to invigorate the animal frame, opium the intellectual powers. Its effects on the system were generally of the most baneful kind. He had seen cases in which there was no constipation, though generally that was a consequence of opium eating. The opium eater was generally known by his care-worn countenance, and his emaciated and dirty appearance. Dr. E. had been informed by an officer in the East India Service, that when opium eaters were taken prisoners, and kept for some time without the drug, they became ruddy and plump, instead of remaining pale and fleshless. Their sufferings at first were generally very intense, but these wore off by degrees. In the case of Mr. De Quincy, the "English opium eater," who reduced his dose in one day from 8000 drops of laudanum to 1000 drops, he experienced no inconvenience; on the contrary, the melancholy which had for some time oppressed him subsided. To these remarks the reporter of the present case adds the *following*:—

The action of opium is different in different persons; in some producing a subdued me-

lancholy, in others creating a temporary insanity. The emotion of the mind which predominates at the time, is generally increased by opium; but the most common effect of the drug is to produce a feeling of liveliness and happiness. The writer is acquainted with the Editor of one of the most influential morning newspapers who is subject to hypochondriacism, and takes a grain of opium about once a fortnight, the effect generally remaining for that period of time, and producing in him a most pleasant and comfortable feeling. The late Duchess of Gordon is said to have owed much of her wit and vivacity in company to the swallowing of laudanum, to which she was much addicted, and the conversational powers of Coleridge were influenced by the same cause. The dreams of the opium eater are at first highly gorgeous, but when the stomach becomes disordered by the long-continued use of the drug, nothing can exceed the horror and gloominess of his visions. Persons of a poetical temperament are often addicted to opium, the inhabitants of the poetical climates of Turkey and Persia especially. Mr. Madden in his Travels says, that he knew a Turk who could not rise from his couch until he had stimulated his frame with a drachm of opium, and then he was most animated and cheerful. He used to take three drachms of solid opium in the day. The writer (the reporter) knew a young woman who took one ounce and a half of laudanum daily, and a retired naval officer who a short time since took two drachms of opium in a day. By great persuasion, the writer induced him to decrease the dose gradually, and he now requires only two scruples to produce the same effect as was before produced by the two drachms. At one time he had diminished the dose to fifteen grains, but in consequence of some domestic calamity he became melancholy, and flew to larger doses. His bowels generally require very strong purgatives to move them. He has little appetite, and is subject to occasional attacks of distressing sickness. He only takes his dose once in the twenty-four hours, but if he suffers any time beyond that to elapse, he becomes wretchedly melancholy. He occasionally drinks freely, but does not find any difference between the effect of opium and alcohol.

LITHOTRIPSY.

Mr. Stanley, on the 15th of August, introduced into the operating theatre a patient named Rowden Hopkins, with whom he has had repeated seances for the performance of the above-named operation. The man having been placed on a bed, whose position could be varied at pleasure, the operator now passed the sound, but could not detect any solid particle within. He then injected the bladder with fluid, when a strict examination was instituted, but with the satisfactory result of not discovering any portion of calculous deposit. On changing the situation of the patient, and subjecting him to agitation, and then using the sound, still no particle of a solid character could be at all detected.

Mr. Stanley expressed himself almost satisfied that the disease was perfectly removed, but he would nevertheless effect another passage of the sound on the ensuing Monday; he also exhibited to the class the aggregate quantity of calculous deposit which he had at several times extracted from the bladder of this patient; the whole consisted of fragments of an irregular configuration and size, about as much in quantity as would occupy the space of a two-drachm pill-box.

The patient is a young man about twenty-one years of age, of healthy aspect, and acknowledges himself as feeling in good health, and complains of little or no inconvenience resulting from the operation.

DEATH FROM INFLAMMATION OF THE ABDOMINAL VISCERA—HOLE IN THE STOMACH, RESULTING FROM ABSCESS.

Reported by Dr. Alexander M'Williams, of Washington.

On Tuesday 22d of October 1835, between twelve and one o'clock, I was called to visit Mrs. ———, a widow. She had labored under dyspepsia for several years, for which she had made use of the stimulating nostrums of Thompson, and been subjected at different times to the treatment of itinerant quacks.

She had taken by the advice of an acquaintance, who supposed she was affected with colic, 30 gtts. tr. opii, followed by castor oil.

I found the abdomen somewhat tense, great tenderness on pressure; no fever; pulse small, contracted, and infrequent; skin natural, countenance good, and somewhat animated. I hesitated to order general bleeding, and substituted extensive leeching over the abdomen.—Prescribed subm. hydr. gr. xv., gum opii. gr. iii.; to be followed by ol. ricini. ℥ss. four hours after: the oil to be repeated every hour until the bowels were freely evacuated; fomentations to the abdomen, and injections of warm gruel were added.

Wednesday 23d. Symptoms as yesterday; had no operation yet from the medicine: ordered, ℞. Subm. hydr. grs. iii.; gum opii. gr. i. M. To be repeated every two hours. Cupping over the abdomen. In the evening, finding the symptoms unaltered, advised consultation; my intelligent friend Dr. Young met me at four o'clock, and advised venesection; blood was drawn from the arm to the amount of 16 or 18 ounces; opium. and subm. hydr. continued. Morning 24th, three o'clock. Symptoms unaltered, bowels unmoved: ordered, ℞. Ol. ricini, ℥ii.; spts. terebinth. ℥ii. M. One half to be taken immediately, the other in three hours after, if no operation was produced; fomentations and emollient injections continued. Twelve o'clock. Pain less severe, abdomen less intolerant of pressure. Subm. hydr. and opium continued. Eight o'clock. All the symptoms improving: several small evacuations from the bowels. One o'clock, morning 25th. Severe pain in the the region of the spleen; painful to the touch; pulse small, not frequent; ordered leeches. Subm. hydr. and opium continued. Eight o'clock. Pain still severe in the region of the spleen; great nausea at the stomach; retching, vomiting occasionally yellow watery fluid: ordered a blister over the spleen. Twelve o'clock. Pain less severe; nausea at the stomach; subm. hydr. continued; applied a blister to the whole abdomen. Twelve o'clock, P. M. Pain much relieved; pulse and skin as usual. Evacuations from the bowels free but not frequent; offensive, but more natural in color and consistence. Saturday morning, 26th. Symptoms more favorable; subm. hydr. and opium continued; ordered saline julep, with tr. opii. Evening, 26th. Nausea at stomach continues; blister to the præcordia. One o'clock. Symptoms as at last visit; prescriptions continued; mercurial ointment ordered over the blistered surface. Monday 27th. Nausea abated; countenance composed; abdomen free from pain; discharges from the bowels natural; subm. hydr. and opium discontinued; light and nourishing diet ordered. Monday 28th. Symptoms generally as on day preceding; pulse 75, scarcely perceptible; skin natural; thirst not troublesome: ordered, ℞. spts. minderi, tr. opii., every two hours. Twelve o'clock. Requested to see Mrs. S.; found her laboring under severe pain near the region of the bladder, with frequent desire to urinate, but passed none; pain on pressure; passed catheter, but no water discharged; ordered diluent and innocent drinks; gave opium, one grain every two hours. Four o'clock. Pain still *severe; opium* continued; ordered fomentations over the bladder, with anodyne injections. Eleven at night. Pain violent; pulse imperceptible; skin cold; while endea-

voring to pass her water fainted; ordered wine; difficulty in swallowing. One o'clock. Dead.

Mrs. S. requested I would make a post-mortem examination in case of her death, that her disease might be ascertained and more fully understood. I therefore requested the attendance of two of my medical friends, one of whom has furnished the following result of this examination.

Mrs. S. was a woman of about 40, and was from appearance of sound constitution; but for several years complained of dyspepsia and severe palpitation. Her habits were good, and she possessed much amiability. In early life she lived in a family as a housekeeper; then married, and had five or six children. For several years she has been a widow, and kept a boarding house: she has always worked hard to maintain her family in comfort and respectability.

Post-mortem examination by Dr. J. M. Foltz, U. S. Navy. Twelve hours after death, the body presented no external evidence of injury or disease, except the abdomen, which was distended, and exhibited marks of leeches and epispastics.

Upon opening the cavity of the abdomen, the omentum was found adhering slightly to the peritoneum throughout its whole extent; on pressing down the stomach and liver they were also found attached to the contiguous viscera and parieties of the abdomen by an albuminous layer, which separated on the slightest pressure. On raising the omentum there was found to be a continuous inflammation and adhesion throughout the whole intestinal canal, and the cavity of the abdomen was filled with a sero-purulent matter. Sacs were found among the convolutions of the intestines resting on the mesentery filled with this fluid, which was carefully removed, and amounted at least to two quarts. The spleen presented marks of the most violent inflammation, and was embedded in pus. All the symptoms strongly indicated a violent inflammation of the peritoneum; but the extent and severity of the disease occasioned no little surprise; the entire surface of the liver, stomach, kidneys, spleen, large and small intestines, uterus and bladder were found covered with an albuminous effusion, the blood-vessels engorged presenting the most striking evidence of acute inflammation. The cause of this inflammation was however not yet manifest, and it was determined to examine the respective viscera minutely. The stomach was removed, but in doing so we encountered no little difficulty in detaching it from a thick layer of cellular membrane to which it adhered, particularly at the cardiac extremity, and which contained a large quantity of yellow pus. The stomach was empty. Two inches from the cardiac extremity on the convex surface, an opening was found entirely through the coats of the stomach nearly an inch in diameter, with indurated and ragged edges. The coats at the superior portion were thickened, but the lower and largest portion presented no evidence of disease. After opening it, a still more extensively diseased portion was brought to view: on a line with the orifice, and at an equal distance from the cardiac extremity, a series of ulcers and cicatrizes were found half an inch wide, and extending almost entirely round the stomach, presenting a puckered and corrugated band, consisting of ulcers with excavated base, and inflamed edges; others in every stage of cicatrization, and a series of firm cicatrizes; a short distance below the ulcers the stomach was healthy. The interior of the liver was healthy, the inflammation being confined to the surface.

The lungs were found unusually healthy, with a small adhesion on the posterior surface of the left lung. The heart was of a natural size, and healthy, with the exception of a polypus in the right ventricle, attached to the columnæ carneæ, with a base two lines in diameter, and four inches in length, bifurcating with the pulmonary arteries. The friends of the subject state that she suffered from palpitation of the heart upon the slightest exertion.

COLICA PICTONUM.

William Barbery, æt. 38, a painter, was admitted into Matthew's ward on the 27th of July, under the care of Dr. Latham; countenance florid, warm, and moist; pulse 110, hard and full; tongue covered with a slight brown fur; great thirst; anorexia, with considerable sickness; the bowels have been constricted since yesterday morning; a copious secretion from the kidneys has taken place; the abdomen evinces a degree of tumidity, and is unable to sustain pressure; an unremitting pain is likewise complained of, with paroxysms of intense pain recurring at intervals; the last two nights have been passed with exceeding restlessness. Ordered thirty leeches and two ounces of castor oil with tincture of opium.

History.—He has been engaged in the avocation of a painter for a period of twenty years; he first suffered from colic about eleven years ago, since which time he has experienced five or six severe attacks; his health has been declining for many days. Last Thursday his bowels became constricted, and considerable abdominal pain resulted; the pain, attended by fever and sickness, has been progressively augmenting up to yesterday. It is a circumstance deserving especial consideration, that arsenic was one of the ingredients which entered into the composition of the paint last used by him.

28. Bowels dejected three times; pulse not quite so hard, although very full and jerking; the abdomen is exceedingly painful, and the pain is aggravated by pressure; the tumidity has increased; the stomach has not been annoyed by vomiting this morning. Prescribed two grains of calomel every third hour; a dose of castor oil; and venesection to twelve ounces. The blood drawn from the arm exhibited a buffy and cupped appearance.

29. There have been a vast number of alvine dejections since our last report, from which the patient expresses himself as being greatly relieved; the pain in the abdomen still exists, but is much alleviated by pressure; the sickness has entirely vanished; the pulse numbers 96, and not so hard as yesterday, but still jerking; the urinary secretion is copiously voided; tongue brownish; some thirst; rested uneasily last night; a very free cutaneous exudation. Ordered pil. saponis c. opio gr. v. every six hours. The bowels were very freely acted on in the evening.

30. The bowels have actively excreted at five separate times during the night; the feces assume a more natural aspect. He complains yet of some pain in the region of the abdomen. Let him drink an aromatic draught three times a day.

Aug. 3. Three alvine excretions were today elicited: he evidences a colicky state of the abdomen about once in three hours; pulse 80; tongue clean; urine voided in large quantity; exceeding thirst. Ordered a warm bath twice a week.

10. The alvine functions have become quite normal; tongue but little furred; perfect absence of pain in the abdomen; pulse averages 92, and the patient acknowledges himself as feeling quite recovered.

11. Has egressed from the hospital to re-expose himself to the same pernicious influence that induced his disease.

LECTURE INTRODUCTORY TO THE COURSE OF THE INSTITUTES OF MEDICINE

Delivered by Robert J. Graves, M.D.,

King's Professor, Dublin.

Gentlemen,—At the conclusion of my observations on the appetite for food, I spoke of the various modes adopted by mankind to allay the sensation of hunger, and of the extraor-

dinary effects produced on the system by long deprivation of food and drink. In considering the length of time man may subsist without taking any solid aliment, it is remarkable that persons laboring under various forms of disease bear the want of food much longer than those in the full enjoyment of health. Thus we see every day instances of persons in fever taking no nourishment for weeks except a little whey or barley water. The same thing is observed in certain forms of gastric disease, the patient goes on sometimes for months harassed by continued vomiting and rejecting his food almost immediately after it has been swallowed, yet it is very rare to find such a person dying of starvation.

A knowledge of the symptoms which arise from want of food is of considerable importance in the treatment of fever and other affections, in which the patient remains for a considerable time without taking any kind of nutritious aliment. There is a certain advanced stage of fever, when a degree of delirium is present, when the patient's pulse is quick, his eye suffused, his tongue dry, his sensibility to external objects either impaired or deranged, his watchfulness persistent, or only interrupted by an imperfect slumbering with half-closed eyelids, when every organ is in a morbid condition, and every function vitiated or suppressed. At this period of an almost mortal struggle with disease, the dry tongue, the blood-shot eye, and the cerebral excitement, are apt to betray the practitioner into the error of supposing that the existence of inflammation in the brain or stomach is the only thing capable of accounting for the alarming train of phenomena present, and with this impression he has recourse to leeching, blistering, and other modes of depletion. But the mischief is not to be obviated in this way; the symptoms assume a more intense and threatening character, and the patient sinks. A far more reasonable and more successful practice is to endeavor to calm the nervous irritation by the employment of opiates, and to sustain the sinking powers of life by the judicious administration of light nutritious food and wine. Often have I under such circumstance seen the tongue become moist and clean, the conjunctivæ grow clear and pale, the delirium subside, and tranquil refreshing sleep return, under the use of wine.

I have mentioned that one of the effects of starvation was inflammation of the stomach and duodenum. In many cases of fever, where gastric or gastro-enteric disease is said to exist, and in numerous instances of dyspepsia supposed to be connected with an inflammatory condition of the mucous membrane of the stomach, the treatment adopted by many practitioners on the continent and by some in this country, is perpetual leeching and a rigorous diet; in fact, besides constant local depletion, a modified system of starvation is enforced. Now the gastro-duodenitis of fever is, in a vast number of cases, nothing more than a species of indigestion, with pain in the stomach and tenderness on pressure, and, in such cases, the debilitating effects of constant leeching, combined with the want of food, have brought on the very symptoms which they were intended to remedy. In concluding this brief notice of a very important subject, I would beg leave to refer you to Piorry's work, in which you will find some excellent remarks on the diete absolue.

With respect to the nature of their peculiar aliment, animals have been divided into frugivorous, graminivorous, carnivorous, and omnivorous. Among the latter man is properly classed. Man and several other animals have been called omnivorous, because vegetable matters, fruits, and flesh are equally suited for their nutrition.

A great deal has been said and written about the diet most suitable for man. Formerly it was the fashion to extol the numerous advantages attendant on a frugal fare; it was asserted that the more simple the diet, the more healthy; that vegetable food was more conducive to longevity than animal, and that repasts consisting only of the fruits of the earth and the water of the spring were essential to a vigor of body, clearness of intellect, and peace of mind. Modern investigations have overturned this beautiful and poetic system

of dietetics, by proving that it has no real foundation in nature. In the first place it appears, when we study the conformation of the human body, and the peculiar structure of the organs employed in the various processes of digestion, we find that man is evidently destined to be an omnivorous animal. If we look to his teeth, we find them to be adapted to the mastication of all sorts of food, whether fruits, vegetables, or flesh. Again, when we examine his stomach and intestines, we find that he has neither the short and simple intestinal tube of the carnivorous, nor the long and complex one of the graminivorous animals, in fact that the stomach and intestines are calculated to derive nutrition from every species of food. In addition to this, man is the only animal that prepares his food, submitting the various articles of diet to processes which at once render them agreeable to the palate, and easily digested; in other words, man, prompted by instinct, and assisted by reason, is the only cooking animal, the only one capable of modifying the properties of the various alimentary matters used by different classes of animals, so as to render them suitable to his own nutrition. Hence the various operations of cookery are universally known; and have been practised from the most remote era, and there is no instance of a tribe or nation existing at any period and unacquainted with the modes of preparing food. It is true that until the arrival of Europeans, the inhabitants of new Holland were ignorant of the process of boiling water; but they were perfectly well acquainted with the modes of preparing food by roasting or broiling.

The opinion of the poets and philosophers, that a simple vegetable diet was calculated to produce, not only greater clearness of intellect and length of life, but also greater bodily vigour, does not seem to be founded in truth, for it has been established, that persons living on a mixed diet and using a large proportion of animal food, enjoy equal, if not superior longevity, and exhibit much more intellectual energy and bodily strength. That persons living on a mixed diet, and using a large proportion of animal food, are stronger than those who subsist chiefly on vegetables, is proved by the experiments made with the dynamometer by M. Peron. He selected seventeen Frenchmen, fourteen Englishmen, fifty-six men of the island of Timor, seventeen New Hollanders, and twelve of Van Diemen's Land (the three latter living chiefly on vegetables), and having ascertained their respective strength he gives the mean results in each case. From the details it appears, that in point of strength the English rank first, next the French, then the inhabitants of Timor, and, lastly, the men of New Holland and Van Diemen's Land. In the two latter, the greatest strength of the arms was equal to 62 kilogrammes; in the English trials the greatest was 83, and the smallest 63. In the power of the loins, the highest among the New Hollanders was 13 myriagrammes; the lowest of the English was 12-7, and the highest 16-3. Thus we see the English, who consume a considerable proportion of animal food, are stronger than the French, and the French than oriental nations, who subsist chiefly on rice.

The idea of living on a purely vegetable diet originated in many countries from a notion that it was wrong and unlawful to deprive animals of life, for the purpose of supplying bodily wants which could be otherwise gratified, and it is the peculiar boast of those who profess this doctrine, that it is in strict accordance with the dictates of a refined and comprehensive humanity. But the discovery of the microscope has unfortunately stripped this doctrine of its most amiable character, by showing that, in chewing his crumb of cheese the Pythagorean murders thousands of living beings, and in swallowing his cup of water deprives myriads of life.

You may ask why do I dwell on this subject? Because I am persuaded that many of the opinions held at present with respect to diet are founded on false theories. I am persuaded, that simplicity of diet is too much insisted on in the treatment of dyspeptic and other cases. I believe that simplicity in prescription, and simplicity in diet, have

been carried too far. It is now well established by theory as well as by experience, that in prescribing we accomplish our object with more certainty and effect by combining several remedies, than by limiting our practice to the employment of a single therapeutic agent. It is the same thing with respect to diet. I am not an advocate for luxurious living, nor would I recommend that excess of variety which characterises the meals of the gourmand, but I think it is wrong and injudicious to make persons live on a single dish. There is a physical as well as a moral objection to it. The custom of partaking of various kinds of food is not easily overcome; the patient grows tired of his solitary chop or beefsteak, and feels no gratification in eating. Now, cœteris paribus, whatever is eaten with a relish is more easily digested than that which is swallowed with indifference or dislike. Many persons assert that a meagre and scanty diet, in quantity much smaller than the appetite demands, and consisting merely of a little bread and gruel, is calculated to promote longevity, and maintain intellectual as well as bodily vigor. Gentlemen, I do not believe this. I have no intention of encouraging gastronomic ingenuity, but I must confess I look on such simplicity in diet as an error against nature. It is an error against that principle which has made man press into his service so many individuals of the animal kingdom and convert so many vegetable substances to the purposes of his own nutrition.

Let us consider for a moment those articles which are prepared by the hand of nature for the food of man and other animals. Let us look to that substance which forms the only nutriment of the young of all the mammalia, milk. Is milk a simple substance? No; it is a compound of saccharine, oily, and albuminous principles; a substance which the simplifiers of diet would say was too complex to be presented to the stomach, and yet it is that which nature has destined for the only support of a vast number of animals at the tenderest period of existence. Again, let us look to the food prepared for graminivorous animals, and we shall find that nature has been here equally varied and equally bountiful in her productions. It would be impossible to get a pasture in which the grass is restricted to a single species; in most pastures there are from fifteen to twenty different kinds, differing in the nature and combination of their vegetable principles, and having separate effects on the economy. Had nature limited the horse or the ox to a single species of grass, this profusion would not have existed; but it was never intended that man and his fellow animals should adhere to a strict simplicity of diet. On the contrary, I feel fully convinced that a certain variety in food is highly essential to the restoration or maintenance of health. This opinion may appear strange, but I can aver from extensive experience, that the physician who treats the valetudinary and dyspeptic on these principles, will be much more successful than he who restricts his patient to a single dish.

The researches of experimental physiology have elicited a number of important facts bearing on the question of simplicity in diet. M. Magendie, as you all know, has shown that dogs fed on sugar alone become after a certain time weak and emaciated, lose their sight from ulceration of the cornea, and eventually die. Again, M. Raspail, in his late work, Nouveau Systeme de Chimie Organique, has shown that gluten, the nutritive principle in plants, will not sustain animal life. Neither sugar nor gluten is alone capable of supporting life, but, if you combine them, they afford a wholesome and nutritious aliment. The human body is not simple; it consists of a great number of fluids and solids, which differ essentially in their nature and chemical composition. Into this composition a great number of elementary principles enter, and is it not, then, reasonable to suppose that a variety of materials will be required? If we were to reduce diet to such a state of simplicity as to diminish the number of the elementary principles which enter into the composition of the solids, I do not think the nutrition of the body could go on. It is true, that nature is able to manufacture a great many different elements from very few mate-

rials, but a certain number of principles must exist to enable her to prepare the compound which she employs for supplying the various wants of the system.*

"In France, most substances are exposed, through the medium of oil and butter, to a temperature of at least 600° Fah., by the operation of frying or some analogous process. They are then introduced into a macerating vessel with a little water, and kept for several hours at a temperature far below the boiling point (212°), not perhaps higher than 180°; and by these united processes, properly conducted, the most refractory articles, whether of animal or vegetable origin, are reduced, more or less, to the state of pulp, and admirably adapted for the further action of the stomach. In the common cookery of this country, on the contrary, articles are usually put at once into a large quantity of water, and submitted, without care or attention, to the boiling temperature. The consequence is, that most animal substances, when taken out, are harder and more indigestible than in the natural state, for it is well known that albuminous substances (as, for example, white of egg) become the harder the longer they are boiled."

An excellent illustration of the principle laid down by the reviewer is afforded by the liver and the kidneys, each of which becomes remarkably harder in consequence of the common methods of cooking. There can be little doubt that the livers destined for the food of dogs are rendered much less palatable and digestible by the pains the unwilling cook is forced to bestow on them.

"These observations are often of the utmost importance in a medical point of view. When the powers of the stomach are weak, a hard and crude English diet (such, for example, as half raw beef-steaks, so frequently recommended) is sure to promote much discomfort by promoting acidity, while the very same articles, well cooked upon French principles, or rather the principles of common sense, can be taken with impunity, and easily assimilated.

"It has been remarked, on the authority of one of our ablest physicians, that our principal alimentary matters may be reduced to three classes, of which sugar, butter, and the white of egg, are the representatives. Now, it is a curious circumstance, that milk, the only article absolutely prepared and intended by nature as an aliment, is a compound of all the three classes; and almost all the graminaceous and herbaceous matters employed as food by the lower animals contain at least two, if not all the three. The same is true of animal aliments, which consists at least of albumen and oil. In short, it is almost impossible to name a substance, employed by the higher animals as food, that does not essentially constitute a natural compound of at least two, if not all three, of these great principles of alimentary matter." * * * *

"It would seem that various food is the most wholesome for man; that he thrives best upon a proper admixture of vegetable and animal diet. The Brahmins, who feed solely upon rice, are not long-lived, and are endowed with feeble constitutions; on the other hand, the Esquimaux are obliged to mix saw-dust with their train-oil. * * * *

"But it is in the artificial food of man that we see this great principle of mixture most strongly exemplified. Dissatisfied with the productions spontaneously furnished by nature, he culls from every source, and forms in every possible manner, and under every disguise, the same great alimentary compound. This, after all his baking, roasting, and stewing, &c., how much soever he may be disinclined to believe it, is the sole end and object of his exertions. Even in the utmost refinement of his luxury the same great principle is attended to; and his sugar and flour, his eggs and butter, in all their various

* The preceding observations on diet were given in a lecture delivered last November. Those which follow are taken from the 104th No. of the Quarterly Review, which I did not see until long after; they remarkably corroborate my views.

forms and combinations, are nothing more or less than disguised imitations of the simple elementary prototype—milk*."

To conclude this part of our subject, I may observe, gentlemen, that even water, as nature offers it for our use, is by no means unadulterated and free from what the ignorant would call impurities; as, whether we draw from the spring or the river, it contains a great variety of salts, gases, &c.; when perfectly purified by distillation, it becomes at once unpalatable and indigestible.

So far as to the general principles of diet. A few facts may be here mentioned with respect to some particular articles of food. It is a curious fact, that occasionally certain principles become developed in chocolate and cocoa when long kept, which render them injurious to the sight. Persons who have used these substances (but particularly cocoa) for a long time, are apt, under such circumstances, to get weak sight and amaurosis. Chicory also brings on amaurosis, and this substance is not unfrequently used to adulterate coffee. Rice also appears to be bad for the sight, particularly when used in a damaged state; and it has frequently been remarked, that the number of blind persons in the East is very great. Dr. Tytler has gone so far as to assert that the Oriental cholera depends on spoiled rice; this, however, is not borne out by facts, for we have had it raging here among a population, the majority of which never even tasted rice.

Having spoken of simplicity of diet in respect to food, let me now say a few words concerning drink. I have already stated that it was my conviction that too much simplicity in the use of solids was bad; I have the same objection to make with respect to fluids. I believe that water alone was never destined to be the exclusive beverage of mankind. Nature has prepared milk for his use as well as water; and in tropical climates she has furnished various fluids from plants to refresh his strength and cool his burning thirst. We also find reasoning man, in every country of the globe, manifesting a tendency to express various juices from plants for the purpose of giving variety and zest to his drink. If we turn to the records of the most remote antiquity, we find that in the earliest periods of society in the days of primitive innocence and patriarchal simplicity, the art of making fermented liquors was known and practised. The use of wine is of very high antiquity among the eastern nations; and we find the early Egyptians using a fermented liquor from grain, which was termed barley wine, and was drunk by the poorer classes. Among the infinite ramifications into which the human family is divided, we do not meet with any tribe so barbarous, or so insulated from commerce with the rest of mankind, as to be unacqua with some mode of giving variety to their ordinary drink. There can be no doubt that nature never intended water to be the only beverage of civilized man; and I am confident that if the whole British nation drank nothing but water for the next twenty or thirty years, they would not be as fine and as vigorous a people as they at present are. Indeed I have but little doubt that if all mankind were to become water drinkers, they would, in the course of a few generations, realise the poetic idea of the degeneracy of the human race. Of this, however, there appears to be but little apprehension, for the tendency to mix fermented and other liquors with their ordinary drink is universally diffused through the mass of mankind. Here, however, reason must control the appetite; and though it was intended that man should use fermented liquors as well as cooked victuals, still he must recollect, that, like other boons, these must be enjoyed in moderation, and a wholesome medium observed. The abuse of fermented liquors is attended by a numerous train of evils; and hence our Temperance Societies have a highly laudable object in view in endeavouring to control the appetite for drink; but in pushing matters too far, they have overshot the mark, and thus the arbitrary nature of

* Quarterly Review, l. c.

their rules has prevented their doctrines from being more generally received and adopted. The total interdiction of spirits in every shape has deterred the lower classes from joining their ranks. It is true, that the abuse of spirits is a mighty evil,—that it is the great and destructive poison which operates in the veins of the nation. This, however, should not totally forbid its proper use, for in small quantity, it appears well suited to this climate, and to the constitutions of this country, and even possesses advantages over wine.

The constitution of different individuals differs in nothing more remarkably than in the tolerance of spirituous liquors, some being affected by a very small quantity, while others are able to indulge in immense potations with impunity. I lately attended a very fat Englishman, of large stature, who was remarkable as an excellent man of business, and had for many years directed the very complicated affairs of a large factory in the neighbourhood of this city. His intellect was always clear, and he was constantly employed in revising the accounts and superintending the expenditure of an establishment in which there were five or six hundred operatives. While thus employed he drank a glass of brandy every three quarters of an hour, so that his daily allowance varied from eighteen to twenty glasses! This practice he had continued for many years without any apparent injury to his constitution. The break, however, came at last, and he died of dropsy at the age of 35.

Among savage nations the introduction of ardent spirits by Europeans has been productive of the most disastrous consequences, and it is to be feared that the supply is facilitated in many cases for the very purpose of producing the moral degradation, and national ruin, that have too often followed their introduction. The most remarkable instance of a savage toper that has been recorded, is mentioned by Moore, in his account of his Travels in Africa. "The King of Barsally, as well as his attendants, are zealous Mahometans, and whenever he was not completely intoxicated he prayed most fervently. Far from thinking, with others of his persuasion, that it was worse than death to taste brandy, or other strong liquors, he considered it almost a deadly evil to taste any thing weaker. His usual course of life was to rise at night and to drink till towards day-light, then eat and go to sleep till near sun-set. At that time he rose, and, having again drunk copiously, went to sleep till midnight. His insatiable thirst for brandy kept both his subjects and neighbours in a state of perpetual terror: when he stood in need of a supply of this indispensable article, he immediately sent to the managers of the company at James's Fort, requesting that they would dispatch a cargo to be exchanged for slaves, a call which these worthy personages always obeyed with the utmost alacrity. Then the king marched suddenly to a neighbouring town, set fire to three parts of it, and stationed his guards at a fourth, who seized the inhabitants as they attempted to escape. If he was not at war with any of his neighbours, he then (says Moore) falls upon one of his own towns, and uses them in the very same manner."

Tea and coffee have also their peculiar effects on the system. These, however, exhibit a considerable difference in different individuals. One person uses large quantities with impunity, while another, who takes a moderate share only, leads a wretched life. It is a fact, that many persons, labouring under headache, tremors, bad sleep and indigestion, may be cured by leaving off tea and coffee, and using instead some table-beer or porter. By substituting these (the latter in the case of English stomachs, the former of Irish), and by giving solid and nutritious food (without confining the patient to one dish), many cases of obstinate dyspepsia have been cured.

With respect to the subject of diet, many curious and important facts may be learned from a perusal of one of the most extraordinary books of modern times, the Life of Caspar Hauser. This unfortunate youth, whose birth has been a riddle, and whose death

has been a mystery, subsisted until he was upwards of sixteen years of age on bread and water. The extraordinary physiological phenomena connected with this young man's intellect, senses, and bodily functions when exposed to the full influence of physical agents, have been ably and accurately detailed by his biographer, M. Feuerbach. There is one very curious circumstance in his case which deserves notice. He labored under a constant thirst and drank enormous quantities of water. This habit was not of recent origin, but had existed as long as he could recollect. As soon, however, as he got accustomed to warm drink, his thirst diminished, and in the course of a few weeks the mere addition of heat to his drink had enabled him to satisfy thirst with the ordinary quantity.

Among the articles of food used as mere condiments, or for the purposes of preserving meat, salt is one of the most general. It would appear, that man accustomed himself at a very remote period of antiquity to the use of salt, on account of the necessity of preserving the flesh of animals in warm climates, as well as for the purpose of rendering his food more palatable. Many other animals also exhibit a strong liking for this substance, and seek it with extraordinary avidity. In North America buffaloes are known to travel great distances in quest of salt, and pigeons fly hundreds of miles to gratify this desire at the salt springs. In Central Africa this propensity leads to annual migrations of the cattle, which travel in droves for several days, until, arriving at a salt spring, they commence drinking the water with great eagerness and apparent relish. I cannot explain why these animals seek for and feed on salt at certain seasons of the year, but it is reasonable to conclude, that an instinct so strong and so persevering was not given in vain.

There are many interesting details connected with the derangement of health resulting from the want of salt, in persons long accustomed to its use, and we have also several curious facts with respect to the effects produced by habitually using salt in large quantities, or rather by the long continued use of salt provisions. In the latter case scurvy is the consequence, in the former a distressing train of nervous and dyspeptic symptoms. In certain parts of Asia and Africa, where no salt can be procured, European travellers have suffered very great distress. With scurvy you are all well acquainted; it exists generally among sailors who have subsisted for a long time on salt provisions, and may be frequently seen among the poorer class of people from the same cause. It is most generally combined with an enfeebled habit of body, purpura, and dropsy. Among the artisans and roomkeepers in Dublin, who live chiefly on salt meat and fish, you will meet many persons who are feeble, pale, asthmatic, and subject to hæmorrhages from the nose, gums, stomach, and bowels, with a tendency to anasarca and dropsical swellings.

With respect to condiments, as salt, pepper, mustard, &c. &c., it may be observed, that they have been very extensively used for a considerable space of time, and in moderation are productive of good effects. They prevent flatulence and promote digestion, but, as in the cases of spirits, when used to excess, they produce irritation of the digestive system. I have lately seen a case of chronic inflammation of the stomach and indigestion from taking a large quantity of Cayenne pepper. It produced severe bowel complaint, with tormina and bloody stools, followed by dyspepsia, under which the patient has been laboring for the last seven months.

I need scarcely observe, that food must be varied according to the occupation of the individual. Persons who take violent exercise in the open air require a strong and highly concentrated nutriment. The natives of the Pampas, who are constantly on horseback, and ride enormous distances, fatiguing several horses in a day, are in the habit of using what is called jerked beef, which consists of the muscular parts of cows or oxen, cut into thin stripes and dried in the sun. This forms a highly nutritious food, and Captain Head gives an interesting account of the surprising fatigue he was able to undergo while living on dried beef and water alone.

You will find, also, that sleep is supplementary to food, and the more sleep a person takes the less food he requires. The man who sleeps till nine o'clock seldom eats so hearty a breakfast as the man who rises at five. In the same way soldiers when engaged in night duty, and sailors when they have additional watches in bad weather, require an extra allowance of food and drink. You will meet with many interesting facts bearing on this point in Captain Parry's account of his attempt to reach the North Pole, and from which it appears that he was obliged to increase the allowance of food during that arduous period of the expedition, when the men had scarcely any sleep for many days in succession.

I had intended to make some observations on the stature, strength, and swiftness of the human race, but as the period allotted to this part of the course has expired, I must necessarily be brief, and refer you to books for further information. With respect to stature, it is a curious fact, that from the most remote ages there has existed a singular propensity among mankind to underrate the size of their contemporaries, and to represent them as diminutive when compared with preceding generations. You will find traces of this opinion in the works of various writers from the time of Homer and Hesiod down to the present period; indeed, this is carried so far in the ancient authors, that whenever an old man speaks of the stature and physical powers of men, it is only for the purpose of descanting on the degeneracy of the human race, and referring, with much complacency, to the feats of superior strength and activity which he witnessed among the tall and athletic companions of his youth. That this opinion is not borne out by facts is proved by the remains of human bones found in the most ancient burial places, and by the Egyptian mummies, as well as by pieces of ancient armor, and by an inspection of the buildings designed for the abode and accommodation of mankind in former ages. This is further strengthened by a reference to the general size and stature of those tribes or nations who have never assumed the habits of civilized society, and who still live in a condition analogous to that of the earlier races of mankind. Thus, if we examine the native Americans, Africans and South Sea Islanders, we shall find that they do not exceed us in stature; indeed, it has been generally observed that they are inferior in height to Europeans.

The accounts given of persons of gigantic stature who lived in past ages, have been proved by the accurate researches of modern science to be nothing more than fables founded upon the anatomical error of mistaking the bones of large animals for human remains, together with the common propensity to believe and report what is marvellous. All the supposed gigantic remains have turned out to be those of the elephant or some other large animal, and there is no authenticated example on record of a man higher than eight or nine feet. The modern instances of extraordinary height are, with very few exceptions, observed among the nations of Europe. Thus a Swede in the King of Prussia's Guards was eight and a half feet; a German in the service of Duke John Frederick, of Brunswick, Hanover, measured the same; Gilby, a Swede, eight feet Swedish; Reichard, a German, eight feet three inches; and O'Brien, an Irishman, eight feet four inches. Among the ancients, the Germans were remarkable for their great stature; and among the moderns, the inhabitants of Patagonia, who are in general from six to seven feet in height.

With respect to the strength of men, the same opinions have prevailed as with regard to his size and stature. It has been asserted, that the men of the present race have degenerated from the vigor of their ancestors; and it is also maintained, that civilized man is quite inferior in strength to the savage who roams the wilds of Africa or America. Neither of these opinions appears to be well founded; bodily strength is the result of health, exercise, and a proper supply of wholesome food; and hence the cæteris paribus, the well-fed classes of a civilized community may be reasonably expected to surpass the miserable savage who frequently labors under want of food and other privations.

With respect to feats of activity in the human race, many have been recorded, and much has been written concerning the swiftness and endurance of various individuals. In this respect the Negro race does not appear inferior to whites, not to mention what has been observed by modern travellers in Africa. I refer you to the accounts given by historians of the games held at Lisbon in 1489, to celebrate the baptism of the African King Bernay. "The Portuguese monarch celebrated this event by all the exhibitions which were fashionable in that age—bull feasts, feats of dogs, and puppet shows. Bernay took this opportunity of displaying the prowess of some of his own followers. As the principal Portuguese cavaliers were making a display of their horsemanship, he called several negroes, who on foot, followed and kept pace with the swiftest of these animals. The same negroes leapt off a horse at full gallop, and, following, again mounted with the same promptitude as if he had been standing perfectly immoveable*."

When Alexander Selkirk resided so long on an uninhabited island, he gradually acquired so much swiftness as to be able to outrun and catch the wild goats.

With respect to feats of strength in modern times, the most surprising on record are those performed by Thomas Topham, about a century ago, and of whose performance an interesting account is given in Brewster's Letters on Natural Magic. This man's strength was prodigious, being equal to 800lbs., which is double that of very strong men. This leads me to speak of gymnastics, as connected with the development of strength; and, without entering into any lengthened discussion of the subject, I may observe, that however desirable such a mode of exercise may be to those who cannot take proper exercise in any other way, they are, generally speaking, totally unnecessary for the education of the body. Natural gymnastics are constantly and extensively practised by every healthy boy and girl, unless prevented by an improper system of education. Among females it too frequently happens that wholesome exercise is neglected; and you will find, in Dr. Arnott's Treatise on Physics, a detail of the various expedients resorted to by those who educate girls to prevent them from enjoying the free and healthy use of their limbs. Boys, fortunately, are not subjected to the same restraints; and hence, if an anatomist were to visit one of their play-grounds, he could scarcely point out a single muscle which is not repeatedly exercised during the brief space allowed for their recreations. Gymnastics certainly encourage the development and increase the power of certain muscles; and persons who exercise their muscles in this way will be so far stronger than others. But it does not follow that such persons are healthier than those who take ordinary exercise. It is a remark as old as the time of Hippocrates, that persons who practise gymnastics are in a dangerous state of health. They increase the power of the muscular system, but, if they do, it is at the expense of the rest of the body; and it was remarked of old, that the athletæ and others who practised gymnastic exercises were subject to violent disorders, and were seldom long-lived.

It is difficult to prevent boys from taking too much exercise. During the period of growth great fatigue injures the general health. But even when gymnastic exercises are so managed as to avoid this inconvenience, and when they succeed in imparting to the boy an extraordinary degree of muscular development, I am perfectly convinced that the natural adjustment of the functions is thus prevented; for however well fitted the frame of youth may be for feats of agility, nature has not adapted it for strength, the attainment of which she defers until the period of growth is passed; and consequently her plans are deranged when muscular strength is artificially and prematurely obtained.

* Di Barros iii. 7.

REMARKABLE CASE OF PUNCTURED WOUND OF THE HEART, FOLLOWED BY RECOVERY.

To the Editor of the Medical Gazette.

SIR,—I beg to offer you the following extraordinary and interesting case, as extracted from the Transactions of the Medical Society of Trinidad. It was read there last year by my friend Doctor Lynch O'Connor, a gentleman for whose accuracy, zeal, and medical ability I can fully vouch, as, when in the army, he served along with me in the Windward Islands during the years 1815, 1816 and 1817, and was then distinguished by his zeal in the pursuit of professional knowledge. There are other papers from his pen on yellow fever and similar subjects, but these, from their length, would, I conclude, prove unsuitable to the pages of the Medical Gazette.

I am, sir, your obedient servant,

WILLIAM FERGUSSON, M. D.,
Inspector Gen. of Hospitals, R. P.

Windsor, Oct. 10, 1835.

Mr. J. H., a graduate of a British University, aged 30, was visited by me 20th April, 1821, under the following circumstances. He had lost his passage to Europe and that of his family (which was paid for by subscription), through his own imprudence. I found him in a sitting posture, perspiring profusely, with hurried respiration, and all the symptoms of acute inflammation of the heart or its membranes. I bled him in a full stream to sixty ounces, when deliquium coming on, he was able to lie down. The anxious countenance was nearly removed, and the voice, which before was scarcely audible, became more distinct. I remained with him for about forty minutes, when the previous symptoms returned with unusual violence; so much so, that I recommended his attendants to send for his friends, as I was apprehensive of immmediate dissolution, and insisted on Dr. Williams being called in, as well as any other medical man he might wish. He obstinately opposed any further advice in so earnest a manner that I began to suspect he had some secret to conceal, and made so earnest an appeal to him regarding his orphan children, that he burst into tears, and stated that he had introduced a darning needle for the purpose of self-destruction, as he believed his object might thus be effected without detection, or disgrace to his profession and family; that he took half an ounce of laudanum previously, from the effect of which he slept eight hours, and after that the pain gradually increased to its present state.

Under these circumstances I sent for Dr. Williams, who said there was evidently carditis, but would not credit the introduction of the needle after he had carefully examined the part, which was situated between the fifth and sixth ribs. However it was determined to make an incision down on the part, in conformity with the patient's desire, when the needle, three inches and a half in length, was found on a line with the external intercostal muscles. I attempted to secure it with the dressing forceps, but from the motion attending hurried respiration I could not succeed. Under these circumstances I sent for a watch maker's pliers, with which I succeeded in extracting it. The moment the needle was extracted all the symptoms were gradually relieved, and in an hour after he merely complained of the incision. Purgative medicines were administered, and he was put upon low diet. In five days he was discharged from my care, and returned to Europe, where he arrived in perfect health, and lived for upwards of ten years.

(Signed) JAS. LYNCH O'CONNOR, M. D.

OBSERVATIONS ON ANIMAL TEMPERATURE, SUGGESTED BY DR. WILLIAMS'S PAPER.

By Dr. Wilson Philip.

To the Editor of the Medical Gazette.

SIR,—One of the most troublesome consequences of deviating from received opinions in our profession, and of all its consequences the most difficult to obviate, is that those who reply, usually (especially if the question be a complicated one) reply only to part, not having before them all that the author has said on the subject.

This may arise from two causes—either all that has been said being distributed among different publications, or the conclusions, in a great degree, depending on what has been ascertained on other parts of the subject, with which the part in question is intimately connected.

At one time I attempted, when such mistakes arose (which are very excusable, respecting the results of an investigation protracted for so many years), to set my opponent right, at least with respect to what I had advanced; but latterly I have allowed things to take their course, satisfied that the truth, whatever it may be, would sooner or later appear; and I the more readily arrived at this determination, because the majority of opponents on such occasions have never seriously considered the subject; an observation, however, which does not apply to the gentleman whose papers induce me to trouble you with this communication. He appears to me, from those papers, both capable of judging of such questions, and willing to take the trouble of carefully examining the data; two things which I have found seldom occur.

In the last communication of Dr. Williams, I find the following observations:—"Hence we must either ascribe to the functions of respiration and circulation the power of generating heat (although to small extent, unless supported by other functions,) or, with those who attribute to the nervous energy a power almost omnipotent, assume that the heat generated after the removal of the brain is produced by the nervous organs still remaining in the body. This latter alternative is so entirely destitute of support, that it is unnecessary to discuss it. I will, however, remark of the only author who to my knowledge has advocated it, that he had a particular hypothesis involved in it. I allude to Dr. Wilson Philip, who considers animal heat to be a *secretion*, a *tertium quid*, resulting from the operation of the nervous energy, or electric fluid (for he holds them to be the same), on arterial blood."

It is premature to enter on any question of this kind till the point which must more or less influence all our opinions respecting the operations of the nervous influence is determined—namely, the nature of that influence.

I have, by the aid of many experiments, the most important of which have been repeated with the same results by eminent physiologists both of this country and the continent, endeavored to determine this point; and in my Treatise on the Nature of Sleep and Death lately republished from the Philosophical Transactions, and my Gulstonian Lectures delivered this year, I have given a reference to these experiments; and from page 198 to page 213 of the former and from page 42 to page 51 of the latter,* have collected together the arguments which appear to myself, and others well versed in such subjects, conclusive, respecting the identity of the nervous influence and voltaic electricity.

Let Dr. Williams examine these passages, in which the whole of the evidence is brought into a small space, and either admit the conclusion or distinctly point out the

* The passage here referred to will also be found in the Medical Gazette, in which the lectures were first published. See Medical Gazette for May 30, 1835, pages 297, 298, 299, and 300.

objectionable part of the evidence; and the nature of the nervous influence being ascertained, we shall experience no difficulty in determining the points immediately connected with its functions. With regard to the particular position which he considers as wholly destitute of support, I believe he will find that there are more things to be considered than he is at present aware of. It would not I believe be difficult to prove, that the removal of the brain, in man altogether fatal to the *sensitive*, although it greatly impairs, does not destroy the *vital*, functions of the nervous system, the spinal marrow, the only other active part of that system, having in its vital functions no direct dependence on the brain.

Dr. Williams will find, if he refers to what is said of animal temperature in my inquiry into the Laws of the Vital Functions (p. 150, third edition) that his term is too strong, when he says that I consider animal heat as a secretion. After referring to the whole of the facts I had stated respecting the subject, the inference is given in the following words:—"That the caloric which supports animal temperature is disengaged by the same means—namely, the action of the nervous power on the blood; by which the formation of the secreted fluids is effected, and consequently that it," that is, the particular action of the nervous power on the blood by which the caloric is disengaged, "is to be classed with the secreting processes."—And in a note, I observe that the intelligent reader will easily perceive how this passage must be modified, if the cause of heat is ever proved to be only a peculiar state of the particles of bodies.

If we employ the term caloric, and regard the cause of heat to be a distinct substance, it follows, of course, that nothing else can be meant in the passage just quoted, than that its evolution from the blood is the effect of chemical changes produced in that fluid by the action of the nervous power, the immediate cause, as appears from direct experiment, of the formation of secreted fluids.

I am, sir, your obedient servant,

A. P. W. PHILIP,

Oct. 14, 1835. Cavendish-square.

"FAMA CLAMOSA."

Case in the Scottish Courts involving the question of Viability.

To the Editor of the Medical Gazette.

SIR:—I beg to direct the attention of your readers to the following report of proceedings in one of the Scottish Church Courts. It will interest them as professional men, and may induce some of them to favor us with the results of their experience on the point at issue.

The child in this case is stated not to have been three pounds in weight: now last summer I saw one, prematurely born (certainly before seven months), which at birth weighed only two pounds and a quarter; it was alive when I saw it, and lived twelve days. But the important question, and on which I seek information, is, at how early a period of premature birth has the life of a child been preserved?

On Wednesday there was a *pro re nata* meeting of the Presbytery of Kirkaldy, relative to Mr. Jardine of Kinghorn, whose lady has given birth to a living child within six calender months of his marriage. Mr. Jardine was married on the 3d March, and Mrs. Jardine, on the 24th August, was delivered of a very weak child—not three pounds in weight—but which with great care has hitherto been kept alive. About three weeks since, after a meeting of Presbytery, held on the subject of shutting up a road which led to the kirk and manse of Kinghorn, Mr. Jardine informed the Presbytery of Mrs. Jardine's premature delivery; and as there were reports in circulation injurious to his character and usefulness, threw himself on the Presbytery, and called on them to make the fullest

investigation, solemnly declaring at the same time his innocence of every thing criminal. The Presbytery agreed to request Dr. Hamilton, Professor of Midwifery in the University of Edinburgh, to come to Kinghorn to investigate and report; but if not convenient for him to come, a similar application was to be made to Dr. Thatcher. Dr. Hamilton could not come, but wrote two letters, stating that his own experience was opposed to the probability of a child born in the sixth month surviving; referring, however, to two cases where children had lived under similar circumstances of premature birth to that of Mr. Jardine's child. One of these occurred in 1710, when the wife of a clergyman in the Presbytery of Wigton was delivered of a living child within five lunar months after marriage; and the celebrated Dr. Pitcairn, of Edinburgh, and other two eminent practitioners, gave it as their opinion that that child had been procreated after the marriage of its parents. The other case occurred in Paisley in 1815, when a married woman, who previously had children, gave birth to a living child nineteen weeks after conception, and it lived a year and a half. Dr. Thatcher was then written to, and he came to Kinghorn and examined the child; as also Dr. Reid, of Kirkaldy, who was accoucheur to Mrs. Jardine; the sick nurse; and the other persons present at the birth; but the certificate he gave, which was laid before the Presbytery on Tuesday week, not being so explicit as some members wished, he was again written to, when he transmitted a certificate of which the following is the substance:—

"I hereby certify, in connexion with my former certificate and note appended, that I consider it quite possible that the child of the Rev. Mr. Jardine was begotten on or after the 3d day of March last, born on the 24th day of August subsequently, and reared in the premature state described; and I consider the *fama* on this circumstance, against the minister of Kinghorn, as utterly groundless."

On Wednesday this communication was laid before the Presbytery, when the majority of the members expressed themselves perfectly satisfied; and Mr. Guild of Auchtertool submitted a motion to the effect, that from the certificates of Dr. Thatcher it appeared there was no evidence to criminate Mr. Jardine, and that the *fama* against him was unfounded. A good deal of conversation followed, in the course of which a petition, signed by about thirty of the parishioners, was given in, praying that the Presbytery would order a Presbyterial visitation of the parish, "before coming to any decision whatever in reference to the subject of the birth of the child." This petition was received and ordered to lie on the table. The discussion was here renewed with considerable keenness, Mr. Jardine deprecating the Presbytery being driven from their purpose of coming to a decision by the sidewind of this petition, stating, that if the petitioners were prepared to libel him, he would meet them most readily. The Presbytery, however, was bound to come to a finding on the evidence before it, which would not preclude the parishioners taking any steps they might hereafter consider proper. Mr. Murray, of Dysart, Mr. Cunninghame, of Kinglassie, and others, supported the Presbytery coming to a finding similar to that proposed by Mr. Guild. Mr. Christie, of Durie, coincided in opinion that the medical certificates completely exculpated Mr. Jardine; but thought the petition of the parishioners ought to be attended to, and suggested that the Presbytery be adjourned. Mr. Bell of Kennoway, concurred in the suggestion of Mr. Christie. Mr. Murray, of Abbotshall, and Mr. Thompson, of Dysart, contended it was for the interest of Mr. Jardine that the Presbyterial visitation should be ordered, the more especially that the decision of a *pro re nata* meeting might be cancelled by an ordinary meeting. Mr. Murray, of Abbotshall, argued that the Presbytery ought to have called Dr. Reid before it, and examined him on oath. To this it was replied by Mr. Brewster, that it could hardly be expected that any member of Presbytery would conduct such an examination: hence Dr. Thatcher had been applied to to take evidence, and his report was now before them. Mr.

Seiveright, of Markinch, in reference to some remarks made at a former meeting relative to Dr. Reid, read a letter from that gentleman, in which he denied having used certain expressions generally attributed to him. When examined by Dr. Thatcher, whom he had never before met, he (Dr. Reid) considered himself in the character of a witness. Dr. Martin, in a lengthened and remarkably logical speech, delivered with much feeling, contended that, besides the medical certificates, every presumption was in favor of the innocence of Mr. and Mrs Jardine. Their previous character was free from all suspicion, there had been nothing like concealment practised. Their intended marriage was approved of by their respective friends months previous to its celebration, and there was nothing to prevent its taking place. When the child was born there was no preparation for it—not a single article of clothing—the parties were all taken by surprise, and no one ever expected the infant to survive. After some further conversation, the motion of Mr. Guild, altered to the following effect, was unanimously adopted :—

" The Presbytery, having deliberately considered the evidence before them, as afforded by the certificates and letters of Dr. Thatcher, relative to the case of Mr. Jardine, declare that there is no ground to charge him with the criminality alleged against him."

The Presbytery agreed to delay consideration of the petition till next ordinary meeting. Against these proceedings Mr. Barclay, on the part of the petitioners, protested, and appealed to the Synod.*

MIDWIFERY REPORTS.

By Edward Rigby, M. D. F. L. S., &c.

Case complicated with Mental Depression.

The next case is, indeed, a melancholy one. The patient had been born to better and brighter hopes. The favorite of a respectable family, well educated, and possessed of considerable personal attractions, she had been seduced by a licentious foreigner under promise of marriage, and then deserted. During her pregnancy she had lost her mother under peculiar distressing circumstances. She had been seized with a fit shortly after being made aware of her daughter's ruin, and being near the fire at the moment, had fallen against the stove, and been so severely burnt as not to survive long. This had tended not a little to increase her state of mental suffering; she considered herself to have been the cause of her mother's death, and from that time nothing appeared to rouse her from the melancholy subject which occupied her thoughts. She made no complaint; and to any inquiries after health almost always returned a favorable answer.

Her nights were passed quietly, but she seldom appeared to sleep. For the particulars of this long and interesting case I am indebted to my friend Mr. Bell.

" Dec. 21st, 1834.—M. H., æt. 22 (single); delivered of a boy; first child; second position; labor natural, and very quick. She was in the hospital a short time before her delivery, during which there was a remarkable depression of her spirits; her face and lips were always pale, and this paleness did not leave her even when straining during labor. About two hours after her delivery she complained of giddiness; and thinking it might arise from fatigue, the nurse gave her some tea; immediately upon taking which she was seized with a profuse discharge of serous fluid from the vagina, which at first flowed slowly, but afterwards came in gushes, accompanied with great faintness, ringing in the ears, and sinking of the pulse. The discharge was so profuse as to completely soak the sheet which was doubled round her, and several folds of the bedding beneath. On examining the uterus it was found enlarged, extending to the umbilicus, and soft, but there were no clots felt on introducing the hand into the vagina. She had

* Fife Herald, Oct. 1, 1835.

another sheet bound tightly round her, and the following draught was given : Sp. ammon. arom. Mx. ; ætheris sulph. ʒss ; aq. menth. pip. ʒj. M. After which the faintness left her and the pulse rose.

22d.—Feels better, and had only one return of the giddiness during the night ; she has slight tenderness of the abdomen, and constant pain in her back ; she has not passed water since her delivery, and the bladder is felt much distended above the pubes. Lochia profuse, and some small clots have come away this morning. The catheter was introduced, and a large quantity of high-colored urine was drawn off, which relieved the pain of abdomen ; pulse frequent and feeble ; tongue white, and very tremulous.

27th.—Says she is quite comfortable, and has had no pain in her back for several days. Lochia regular, but unnatural in appearance since the second day after her delivery. Bowels have been kept regular by castor oil ; but as she expressed great dislike to it, she had to-day four grains of comp. ext. of colocynth, and the same of ext. hyosciami. Spirits much depressed ; face very pale. Appetite good, and she has meat ; notwithstanding which her milk has diminished in quantity.

28th.—In the morning appeared much as she was yesterday ; had a grain and a half of quinine at noon. In the evening she became slightly incoherent, and when she was spoken to started as if from a stupor, but answered quite collectedly. Dr. Rigby saw her, and ordered camphoræ, ext. hyosc. aa. gr. iv. ; and to be repeated in three hours.

She has slept indifferently for some nights.

29th., 8 A. M.—Makes no complaint, and says she feels quite comfortable. Bowels opened three times since last night ; pulse 144, very feeble ; tongue white and tremulous.

℞ Liq. opii sed. Mvj. ; mist. camph. ʒss. statim.

Noon. The bowels have not been opened.

To have a grain and a half of quinine. Arrow root and port wine for food.

Has been occasionally incoherent during the forenoon. Dr. Rigby saw her soon after.

℞ Opii duri, gr. j. ; camphoræ, gr. iij. M. omni hora usque ad somnum. Let her have emulsion of egg and brandy.

After taking three of the above pills she fell asleep, but was very restless. Pulse 144, very feeble ; subsultus tendinum.

9 P. M.—Has just waked suddenly and leaped out of bed, and said she wished to dress herself, as it was time she was up ; she seemed to be laboring under great nervous irritation, and spoke hurriedly, though collectedly. She returned quietly to bed.

Continue the opium and camphor, and to have a draught containing one grain of quinine, ten drops of diluted sulphuric acid, in a little cold water, at three in the morning.

30th, 9 A. M.—Has passed a quiet night ; tongue very dry ; bowels opened once ; pulse 144, rather fuller.

Repeat the quinine and sulphuric acid immediately, and every two hours.

Half-past 3 P. M—Complains of pain in her left side when she breathes. Tongue moister ; pulse 100, intermitting, and very feeble.

To have the side rubbed with anodyne liniment ; the quinine to be continued ; and to have beef tea frequently.

5 P. M.—Much the same as at last visit. Dr. Rigby saw her, and ordered the opium and camphor to be given at 6, and the quinine at 8.

Omit the beef tea, and let her have calf's-foot jelly instead.

9 P. M.—Pulse again up to 144, fuller, and more regular; tongue dry, and very tremulous.

Half-past 11.—Has had some sleep, but moaned very much during it. When spoken to she requires some time to collect herself to answer. Dr. Rigby saw her.

℞ Ext. hyosc., ext. gentianæ, aa. gr. iv.; quinini sulph. gr. ij. M. and divide in pil. j. to be taken at 2 in the morning. Continue the beef tea.

31st, 8 A. M.—Slept a good deal during the night, but moaned and seemed much distressed. Is much weaker, and has great difficulty in speaking, or in opening her mouth to show her tongue, which is very dry. Has taken very little of the beef tea; stomach slightly distended.

10 A. M.—Not having passed water since last night, the catheter was introduced and brought away nearly two pints of urine with much relief.

℞ Ext. gentianæ, camphoræ, aa. gr. vj., quinini sulph. gr., iij. M. ft. pil. iv.; two every two hours. Continue the beef tea. The catheter to remain in, and the water to be drawn off every two hours.

Jan. 1st.—The powers of life continued to sink gradually, and she died without any suffering at 10 this morning.

Remarks.—There are several remarkable facts about this interesting case, which are well worthy of notice. The great and overpowering depression of mind must be looked upon as the main cause of her having sunk thus; it was a state of profound melancholy which was beyond the passionate demonstrations of common sorrow, and which annihilated every other thought and feeling. To the great depression which the physical powers suffered from this state of mind must we attribute the sudden and very remarkable discharge of serous fluid from the vagina, which took place after labor. Serous discharge from the vagina may occur under very different states, and from equally different causes. In the present case it appeared to result from insufficient contraction of the uterus, allowing the watery portion of the blood to escape from the mouths of the vessels which open upon the lining membrane of its cavity. This affection has been lately noticed by Dr, Ashwell, in the Medical Gazette, and also by Mr. Bury; but with the exception of Dr. Ashwell's last case, it appears to have been of a different character.

The delirium and other symptoms which appeared on the 28th, were as much the consequence of sleeplessness as of debility. She had passed her nights so quietly, that to a person merely passing through the ward she appeared asleep, although, on going up to her bed, she was always found awake. It was to calm the cerebral excitement and produce sleep that I prescribed the henbane and camphor. The next day passed much in the same manner; she said she felt quite comfortable; but the fact was, she had not slept to any extent, and a return of incoherence justified the active doses of opium which I then exhibited. It now, in short, became a struggle (and a fruitless one) between the prostration into which she was gradually sinking, and the efforts of her attendants to rouse the failing powers of life. My own conviction is, that even if the powers of her constitution had been able to withstand the depression under which she labored, the mind would not, and that mental aberration would have been the result.

VAGITUS UTERINUS.

M. Dubroca, of Barsac, has communicated a remarkable instance of this kind to the *Bulletin Med. de Bourdeaux*. He says that in 1827, a midwife called upon him, and mentioned, with evident incredulity of her own story, that she had just heard an infant cry in the womb of its mother. M. Dubroca went immediately to see the woman. She was a person in good health, had already given birth to two children, and was now in the

eighth month of her pregnancy. The crying had begun during the preceding night, and had continued since, with intervals only of a few minutes cessation. The noise was that of a new born infant, but not so loud; rather resembling the cry of a child shut up in a box. When the woman walked, the voice always seemed to proceed from the place where she was. After three days the phenomenon ceased altogether; but it was not till a month and a half afterwards that the child was born. It was a fine male child, which uttered cries at birth, exactly like those previously heard; it is still living. The poor woman (the mother) was greatly alarmed, and shed tears copiously. Somebody had frightened her by saying that she must be possessed with the devil, if she was not a witch or a ventriloquist. M. Dubroca was satisfied that she was no witch at least, and seems persuaded that she knew nothing of the nature of ventriloquism.

RADICAL CURE OF VARICOCELE.

Dr. Fricke of Hamburgh, has cured three patients laboring under varicocele, by simply passing a needle and thread through the dilated veins, and allowing the thread to remain for twenty-four or forty-eight hours, according to the degree of reaction produced. He recommends the method as being as safe as it is simple.—*Gazette Medicale.*

TURPENTINE IN SCIATICA.

Dr. Ducros of Marseilles, gives an account of the great efficacy he found in spirit of turpentine administered in cases of sciatica. He employed it in the form of lavement; gradually increasing the quantity at successive injections, until it amounted to two or three ounces. He conceives it to have a specific effect.—*Gaz. des Hopitaux.*

PUBLIC HEALTH IN PARIS.

A species of typhoid fever has prevailed epidemically in the metropolis during the last year, and still continues its insidious ravages. An alarming number of young men, students in law and medicine, have been cut off; and of the troops which have come in the course of the year from the provinces to Paris, above one third have been lost.—*Revue Medicale Francaise.*

LITHOTOMY.

On Saturday last the theatre was crowded by pupils and practitioners to witness the operation of lithotomy by Mr. Liston. The bladder of the patient (John Inwards, aged 61) had formerly been examined with a view to the performance of lithotrity, but circumstances which are not detailed in the report that has been handed to us led to his application for relief by lithotomy. Since his admission into the hospital he has suffered considerably from the usual symptoms of calculus, and retention of urine.

Having been secured in the usual manner and the presence of the stone detected, the curved staff was introduced, and an incision made, about three inches and a half in length. The bladder was reached by the third incision. On introducing his finger, the operator found much difficulty in feeling the stone, in consequence of the unusual depth of the perineum, the great size and rigidity of the prostate, the capaciousness of the bladder, and the constant efforts of the patient to extend and adduct his limbs and to raise his pelvis. The forceps being introduced it was found from the above causes, after frequent attempts, impossible to expand them in the wound. The incision was now enlarged in the original direction, with a blunt pointed bistoury, and a stone was removed by the forceps, which

brought away also a portion of the prostate, about the size of half a walnut, which had been detached by the bistoury; it was apparently a projecting portion of new growth, and as the operator said, "could easily be spared, as he had abundance of the gland." On examining the bladder by the searcher, another stone was detected and after much difficulty brought down by a scoop of no ordinary length, and immediately removed by that instrument and the finger. The second stone was removed in about ten minutes from the first incision.

Mr. Liston, after referring to the difficulties which he had encountered, made some remarks on the necessity of presence of mind and decision under every accident during operations. This was a case, he said, in which he thought lithotrity would not have been attended with benefit had it been attempted, as the state of the bladder was very irritable. He did not think the patient would run any additional risk from the detachment of the small portion of the gland, the superabundance of which was probably the cause of the retention of urine. The case altogether was one of the most troublesome he had met with. It had only happened to him in one or two cases before that he could not reach the stone, and ascertain every thing connected with it, by the finger.

17th. Going on well, the urine passing freely and clear.

ON THE BROWACH.

On entering the library of the College this evening, we were rather surprised at the display of fresh plants on the table. There were certainly some that were highly deserving of attention. The assembly of medici (using the term in its wide extended and legitimate sense, including all the legally qualified practitioners of the healing art) was large, and, as a matter of course, very respectable.

The communication which had been prepared for the evening's entertainment, proceeded from the pen of the Registrar, Dr. Hawkins, and was entitled, "On the Browach," including apparently under that title all painful affections of the supra-orbitar nerve. The author commenced with the detail of four cases, which were classed together, although decidedly dissimilar. The first case, by no means a rare example of disease, occurred in the person of a young lady, who it appears had experienced some disappointment, and was afterwards affected with regular intermittent neuralgia of that nerve. Although apparently there was not any of the organs in fault, neither mineral nor vegetable tonics could remove the complaint, until a few alterative doses of blue pill had been prescribed, and then a cure was speedily effected. The lactucarium was administered in conjunction with the tonic.

The next case was that of a lady suffering from remittent browach, arising from cold which was not removed until after the application of some leeches, when mild opiates and aperients completly cured the complaint.

The third was evidently dependent on derangement of the catamenial functions, and disappeared on the uterus performing its duties rightly. (By-the-bye, is it not against the ethics of the College for a Fellow and officer of that exclusive institution to meddle with a case so evidently bearing upon obstetrics?)

The last case, that of a man recently a patient in the Middlesex Hospital, was one of intermittent neuralgia of the frontal nerve, cured by the sulphate of quinine and the extract of conium.

The Registrar, in the course of the observations which he made on these cases, took occasion to pay Sir H. Halford a compliment (somewhat of the most fulsome) on his Essay on Tic Douloureux, and endeavors to carry still further the ideas promulgated in that paper. He is of opinion that the vicinity of these nerves to the frontal bone may

be a cause for the frequency with which they are diseased. A more crude idea never issued from the brain of man : how can any human being capable of reasoning assume for an instant that because a nerve is placed by nature near a bone it must become diseased, or at least in a greater ratio than other nerves ? Were such the case, we should frequently have the nerves entering and supplying the osseous structure of the system in a state of inflammation or disease ; but it is well known that such is not the fact, and consequently the only new deduction made by Dr. Hawkins falls to the ground.

The meetings at the College of Physicians have now closed for the present year, without, however, any more being done than the exhibition of a few plants, specimens of the materia medica, books, engravings, &c. &c. As these might be as well seen, and perhaps to greater advantage, at a druggist's, bookseller's, or herbalist's, we shall not make any further allusion to them. In the course of the past session, several papers have been read, but little additional medical information elicited, certainly not to the amount we are entitled to expect from so learned an institution.

ON THE SALT SPRINGS OF WORCESTERSHIRE.

A Lecture delivered before the Worcestershire Natural History Society.—By Charles Hastings, M.D. &c.

Dr. Hastings has the art of seasoning his scientific information so as to make it palatable to all classes of readers; his lecture on the salt springs may therefore be naturally expected to be piquant, and to contain something of Attic as well as of Worcestershire salt in it. Both the general reader, accordingly, and the geological, will find matter in this lecture to interest him. We cannot part from it without something in the shape of an extract. Dr. Hastings tells us that, on an average, every adult person consumes, in his bread alone, independent of what is taken in other ways, about two ounces of salt weekly, or upwards of 100 ounces every year. And again, our great desire for salt is still farther shown by another fact; we learn from Dr. H. that Cheltenham and its environs owe much of their attraction to the springs with which they abound, and in which the chloride of sodium is a principal ingredient; just as the salt-licks in North America are visited with such avidity by the wild deer and other cattle. "Man obeys the same law as those lower animals, in showing so strong a desire for the mineral and saline waters, and by attributing to them such great powers in preserving and restoring his health. The waters of Cheltenham have alone, either immediately or remotely, been the means of attracting a population of between twenty and thirty thousand inhabitants ; and in Warwickshire, at Leamington, a very large population has been brought together by the same cause."

HYPERTROPHY OF THE UTERUS.

History.—Sometimes the uterus takes upon itself a process of enlargement and growth throughout its whole extent, a quantity of solid matter being deposited within its substance, and becoming organized. This is a very rare disease, and is generally met with in advanced age. It is not of a malignant nature ; and the principal inconvenience produced from it is in consequence of its bulk and weight, and the pressure it causes on the neighboring organs. Its increase is very slow. Like the fleshy tubercle, it may become enlarged to such an extent as no longer to be capable of remaining a resident in the pelvis ; and it rises, but more slowly than the gravid uterus, into the cavity of the abdomen.

Symptoms.—The symptoms are much of the same kind which I have just enumerated. Menstruation, if the woman be still the subject of that function, will most likely be inter-

rupted or deranged. When it rises from the pelvis, there will be a fulness of the lower belly; and the tumor may be felt above the pubes, as a large, hard, and very firm inelastic ball. We are more likely to detect the disease by an examination per vaginam, than by simply placing the hand over the abdomen. We shall then find the os uteri enlarged, its aperture more open than usual; and on poising the organ on the extremity of the finger it will be found much heavier than it should be.

Treatment.—With regard to treatment, I can only repeat what I have just said respecting the fleshy tubercle. I do not know that any medicine will remove it; iodine might perhaps be useful, but our means should be principally directed towards combating any distressing symptoms that may arise as the womb enlarges.

OSSIFICATION OF THE UTERUS.

Occasionally, but very rarely, the uterus is converted into bone. This disease is one of advanced age. We know that in the decline of life, in some constitutions, there is a great disposition to the secretion of bony matter in many of the organs, and especially the arteries. I suspect, when this change takes place in the uterus, the arteries are first affected, or perhaps small tubercles may be formed, and become afterwards bony.

The disease is slow in its progress, and the symptoms by no means decisive. If on examining the os uteri, it was found very hard, and not painful, we might suspect that more or less ossific matter was deposited throughout the whole organ. I think it very unlikely that we should be able to detect this disease during life; especially as it is not necessarily connected with any great degree of enlargement. I can give you no rules on which to form your treatment from my own observation, for I never saw the disease, to my knowledge. It is not likely that the symptoms would be of a severe character, so as to indicate a necessity for powerful remedies.

THE PLAGUE.

Some of the French medical practitioners at Alexandria have been making experiments on the contagion of plague. They have been *promised* by the government ten or a dozen convicts, whom they mean to inoculate with the disorder, so as to be able to study its phenomena from the commencement. Meantime they have tried the effects of making horses and dogs swallow the infected matter of buboes from the human subject; the result of which is, that they have satisfied themselves the disease may be communicated by absorption. Those animals were affected with carbuncles and buboes, and perished with nearly the same symptoms observed in man.

TREATMENT OF SALIVATION.

In mercurial salivation, with ulceration of the gums, M. Ricord, of the Veneriens, employs the pure hydrochloric acid with the best effect. The ulcers are cleansed, and soon produce healthy granulations; the salivation ceases after the acid has been applied a few times; and in very recent affections a single application has been found sufficient—*Gaz. des Hop.*

NEW CAUSTIC FOR CANCEROUS AFFECTIONS.

M. Recamier has been very successful of late in the employment of a new caustic remedy for cancer. It consists simply of aqua regia, holding in solution a certain quan-

tity of pure chloruret of gold. The idea of trying the virtues of this substance originated in rather a curious way. A working goldsmith, who had a cancerous tubercle on his cheek, was obliged frequently on account of the pain to put his hand to the part; and the hand having on it some of the solution of gold in aqua regia, a marked improvement gradually took place, and at last the tubercle disappeared.

M. Recamier, having had his attention called to the fact, availed himself of the opportunity of trying the solution on a patient who labored under painful ulceration of the neck of the uterus. The general character of the ulceration was decidedly cancerous, and there had been a considerable destruction of the parts. Seven or eight applications of the caustic completely cured the disorder. By the aid of the speculum it was ascertained that the ulcer was cicatrized, and that every inflammatory appearance had subsided. Several other patients are at present under treatment with this caustic in the Hotel Dieu. The exact composition of the remedy is this :—

Nitro-muriatic acid, 1 ounce;
Pure chloruret of gold, 6 grains.

A bit of charpie is dipt in the solution, and applied to the parts; and it should be so applied as to cauterize pretty deeply, when an eschar will be formed, which will come off in three or four days. The caustic, however, is not then to be discontinued; it must be repeated for about six or eight times, according to the extent and depth of the lesion. It should be added, that the application of this substance is by no means painful, and that its action is wholly local,—two circumstances which render it a most desirable remedy.—*Ibid.*

ON THE INFLUENCE OF THE NERVOUS SYSTEM IN DETERMINING THE NATURE AND PROGRESS OF DISEASE.

By A. P. W. Philip, M.D. F.R.S.L. & E. &c.

On the Influence of the Sympathies of the more perfect Animals in determining the Nature and Progress of Disease.

It is necessary to explain why the following paper, to which I have had such frequent occasion to refer in the practical part of the preceding lectures, should be given in an appendix, instead of having been incorporated with them. It is the last of a series of papers relating to the laws of the animal economy, eleven of which have appeared in the Philosophical Transactions, for which it also was intended; but it occurred to a friend in whose hands I had placed it, that, its illustrations being wholy derived from the phenomena of disease, and its object one altogether relating to the practical part of our profession, it would with more propriety be presented to a medical society than one of general science; in consequence of which it was, by his advice, presented to the Royal Medical and Chirurgical Society, at a time I did not contemplate being appointed to deliver the Gulstonian Lectures, to the subject of which it immediately relates, and of which indeed it forms an essential part; and, as stated in the foregoing lectures, read at an early meeting of the Society in the present session. A friend, however, who belongs to the Council of the Society, finding that it occurred to some of its members that there was an awkwardness in publishing, in the Transactions of one Society, a paper belonging to a series which had appeared in those of another, withdrew it; which enables me to give it as an Appendix to the Lectures, though it came too late to be incorporated with them.

Although much has been written on the subject of the following paper by authors of great name, the meanings attached to the term sympathy have remained indistinct, and the phenomena arranged under it ill defined, from which it may safely be inferred that we have not been in possession of all the facts on which these phenomena depend.

In various papers published in the Philosophical Transactions, I have attempted to apply the results of many sets of experiments to remove the confusion which had crept into different departments of physiology. I propose in the following paper to inquire how far these experiments tend to throw light on the nature of the sympathies, which so extensively influence the functions of the more perfect animals in health, and still more uniformly, and in a more striking manner, in disease. I have done myself the honor of submitting the discussion to the Royal Medical and Chirurgical Society, because its subject is more immediately connected with the practical part of our profession than the subjects of the papers just referred to; for I think it will appear, that on correct views of the laws of sympathy the proper treatment of many cases, and in not a few the favorable termination, depend.

I shall not detain the Society by observations on what has been done by others on this subject, but immediately, by an appeal to the phenomena, endeavor to place its laws in what appears to me the only correct point of view.

It is not my intention to enter into any more extensive view of the phenomena of sympathy than is necessary to illustrate the principles on which it depends; and still less into the various phenomena of disease dependent on it, farther than to obtain a clear view of the causes, in consequence of which it exercises so extensive, and often so obscure, an influence over them.

It is necessary, in the first place, clearly to determine what we mean by the term sympathy, or, I should rather say, to point out the sense in which I shall employ it, for few terms have been employed with less precision. We do not refer to what is called sympathy all the effects of distant parts on each other, although there are few of these which have not, by some writer or other, been referred to it. I shall not, for example, refer to sympathy the influence on each other of the parts concerned in any act of volition, nor the effects of injury done to the trunk of a nerve on the parts in which it terminates, nor the congestion, throbbing, or other effect, from a cause seated in a part, however distant from the part affected, increasing or obstructing the circulation in it (obstructed liver, for example, does not produce piles by sympathy); nor, in short, any instances in which distant parts influence each other, where the structure of our bodies at once points out the channels of communication.

But when a cause, for example, which makes its impression on the stomach, produces palpitation, I shall regard it as affecting the heart by sympathy, because it is evident from the structure that there is no direct channel of communication between, apparently, the only parts concerned.

As it is evident, however, that no part can influence another between which there is not some more or less direct channel of communication, we may be assured that the phenomena of sympathy are produced, as in the case of all other phenomena in which distant parts affect each other by the propagation of the impression along contiguous parts, the only difference being, that in the one class the channels of communication are evident; in the other obscure.

The term sympathy, then, may be defined, the influence of distant parts on each other between which the mere structure of our bodies, compared with the phenomena, do not point out the exact channels of communication.

Two systems, the nervous and sanguiferous, with a few unimportant exceptions, pervade every part of the body. There are no other means of communication among all its parts. As the phenomena of sympathy then, we shall find, extend to all its parts, it must be through one or both of these systems that it operates. We know that it does not operate through the sanguiferous system alone, because many of its causes are such as are incapable of directly impressing this system; and many of its effects such as no unaided affection

of this system could produce. It must, therefore, be more or less through the intervention of the nervous system that its phenomena take place; but it will appear that all its phenomena are such as may take place through this system alone. We thus arrive at the conclusion, that the channels of communication here are through the nervous system, a position which has been almost universally admitted; and the phenomena of sympathy were long supposed to depend on the connexion formed by the nerves with each other, in their progress from the central parts of the system to the parts they influence.

The various parts of the living animal may be divided into active and passive. The belly of a muscle is the active, the tendon the passive part. In like manner, the brain and spinal marrow are the active, the nerves the passive parts of the nervous system, the latter possessing no power but that which they derive from the former.

As soon as it was proved that the nerves are only the passive parts of the nervous system, it was evident that they could not be the medium on which the phenomena of sympathy depend, because these phenomena do not consist in the mere continuation of the impression from which they arise, the sympathetic effect being often of a nature wholly different from the immediate effect of that impression. The cause which excites pain alone in the part on which it operates, may excite motion alone in that sympathetically affected, and vice versa. The part, therefore, through which the impression is communicated, must belong to the class of active parts. It must be capable, on being impressed, of originating an effect of a nature different from that of the cause which impresses it, a function of which we know the nerves to be incapable. It appears, then, that the phenomena of sympathy take place through the active parts of the nervous system, and consequently that they depend on organs which belong to the central parts of that system—a conclusion amply supported by the direct facts, and to which, by a review of these facts alone, the most correct writers of the present day have been led.

What particular connexion of nerves exists between a vital organ and the skin which covers it, between the liver and ligaments of the shoulder, between the intestines and abdominal muscles, the stomach and cartilages of the ribs? &c. Why does inflammation of the membrane of the ribs spread as readily, indeed more so, to that of the lungs, which is only in contact with it, as to the parts in continuation with it, which are supplied from the same branches both of nerves and blood-vessels? The same question may be asked respecting inflammation of the membranes of the abdomen and head; for even the interposition of bone does not prevent this sympathy of neighboring parts, of which the bone itself equally partakes. In inflammation of the bowels, we find contiguous parts partaking of the state of each other, although their distance is great, if measured by the course either of their vessels or nerves. That the phenomena of sympathy depend on changes in the central parts of the nervous system, would appear from the fact alone, that feelings continue to be referred to a limb which is lost, at whatever part the separation has taken place. Besides, we know that all nerves convey impressions to the central parts of the nervous system, and that these parts influence all their functions, facts capable of explaining the phenomena, without any supposed action of the nerves on each other.

Here the question arises, is there a common centre of sympathy? Are the parts whose office it is to influence those secondarily affected, always the same, or are they different in different cases, so that there is more than one such centre? To answer this question, which we shall find of no small importance in the treatment of diseases, it will be necessary briefly to state the results arrived at in the papers published in the Philosophical Transactions for 1831, 1833, and 1834.

In these papers I have had occasion to refer to sets of experiments, made with a view to draw the line of distinction between the sensorial and nervous functions, and determine the relation these functions bear to each other; from which it appears that the nervous bear the same relation to the sensorial that the muscular bears to the nervous system. The power of the muscular, it appears from the facts there adduced, is independent of the nervous system, but always in some of its functions, and in all its functions occasionally under its influence. In like manner it was found that the power of the nervous is independent of the sensorial system, all the nervous functions remaining after the final removal of the sensorial power, but that in some of its functions always, and in all of them occasionally, it is under the influence of that power.

Thus it appears that there is, in the more perfect animals, two sets of functions in a great degree distinct—those depending on the nervous and muscular systems alone, and those in which the sensorial system is included: the former constituting the vital functions, those by which we are maintained, the latter the sensitive functions, those by which we are connected with the world which surrounds us; and that both sets of functions are under the immediate influence of the active, that is, the central parts of the nervous system.

It further appears from the facts referred to in my papers on the Nature of Sleep and Death, last year re-published from the Philosophical Transactions, that the parts of the brain and spinal marrow associated with the organs of the sensitive system, and those associated with the organs of the vital system, are distinct sets of organs, having different localities, and obeying different laws. It is quite evident, therefore, that if both the sensitive and vital functions in the various parts of our frame sympathize, it cannot be through the same parts of the brain and spinal marrow; as these functions depend on different sets of organs, their centres of sympathy must be different.

It will appear on the other hand, from the facts I am about to state, that the phenomena of sympathy themselves lead to the same conclusion—that each system possesses its own centre of sympathy, and consequently that there is a centre of sympathy in a great degree independent of the sensitive system, and therefore of our feelings; on which depends one of the greatest difficulties which beset the practice of medicine, and which has led, and still leads, to errors of a fatal nature.

The sympathies of the sensitive system necessarily force themselves on our attention. When the feelings of disordered digestion, for example, are accompanied by pain or sensible derangement of function in a distant part, it is impossible for us to overlook the sympathy on which such symptoms depend. But the sympathies of the vital system, operating unconsciously, are often obscure. The vital functions of both the head and chest, for example, are not unfrequently affected by such a state of the digestive organs as does not, by any complaint of the patient, call the attention to the source of the evil; and unless it be so called by other means, if the case be of a serious nature, it necessarily proves fatal; for the consequence cannot be removed while the cause continues to operate.

Another circumstance which has contributed to keep us in the dark respecting such cases, is, that the centres of sympathy in the two systems not being identical, their sympathies are not in all instances most prevalent in the same organs. A vital organ may be an organ of dull feeling, and little capable of influencing other parts of the sensitive system, and yet, as far as relates to the other vital organs of the most powerful and extensive sympathy; and thus an affection which neither betrays itself to any of the senses, nor implicates organs the sympathies of which are, from their sensibility, the most prominent, may be undermining all the powers of life; and, I think, all conversant with the practice of medicine, will admit that it is here that it is at present most defective. Fatal cases are

every day occurring, as appears from dissection after death, the progress of which might have been easily checked had we been aware of their nature before the secondary and more prominent affection had shown itself, and even after it had appeared and made some progress, had we been aware of the cause which was supporting and aggravating it; for few affections are, from the first, necessarily of a fatal tendency.

There is no organ whose sympathies are absolutely confined either to the sensitive or vital system; all organs, more or less, partaking of the functions of both: but that the different species of sympathy prevail most in different organs, a thousand phenomena assure us; and we have ample proof that the vital often so little influence the sensitive sympathies, as neither to attract the attention of the patient or his medical attendant.

In no other organ are the sympathies of the sensitive system so powerful as in the stomach—an organ of the most acute sensibility; but the sympathies of the vital system are much more powerful in the liver, which, although of very dull feeling, influences, and is influenced by, the vital functions of distant parts more powerfully (if we except the brain itself) than any other organ; and that it will appear from what I am about to say in a degree that admits of no comparison.

Hence it arises, that even when the secondary symptoms affect the same organ, if they originate from impressions made on the stomach, they are generally affections of the sensitive, if from impressions on the liver, of the vital system. Affections of the former, for example, produce headache and dyspnœa; those of the latter, often (without producing much sensible derangement either in the brain or lungs) gradually derange the assimilating powers of both. Of all our organs, therefore, the affections of the liver are the most insidious. They are the parent of many diseases which give little uneasiness till the organs secondarily affected are essentially diseased.

Disorder of the stomach hardly ever seriously and permanently disturbs the circulation either in the head or chest, till it has spread to the liver. Thus it is that, in practice, we find the sympathies of the stomach, although more distressing to the feelings, much less formidable than those of the liver, in which chronic disease often lurks, and where it does not itself gradually assume a formidable shape, by its imperceptible but constant operation on some distant organ, not unfrequently lays the foundation of disease in its vital parts; which comes upon us unexpectedly, and after it has made such progress as defies our art.

I can say, from pretty extensive and long continued experience, during which my attention has been directed to the subject, that no permanent disease affecting the vital functions of any distant part, in consequence of affections of the digestive organs (and all who are conversant with the practice of medicine know how numerous a class this embraces), is ever established till the disorder of the stomach, if the disease originate there, has for some time, longer or shorter, according to the tendencies of the particular constitution, extended to the liver.

It requires the whole attention of the physician to detect the nature of such cases in their early, and often only curable, stage. While disease is confined to the sensitive system—that system by which we are connected with the external world, but has no share in maintaining life—the sufferings and privations may be great, while the danger is trifling; but when to the vital system—to those organs which, having no immediate share in our intercourse with the world, neither require nor possess that quick sensibility which is necessary for the functions of the sensitive organs—the sufferings bear no proportion to the risk; and we are only able to ascertain the nature and extent of the disease by the results of long continued and careful observation.

Hence the importance in all serious diseases, and particularly those of long standing,

of carefully examining the region of the liver, to which the feelings of the patient will seldom direct our attention, and using all other means in our power to ascertain the state of this organ; for on it, in not a few cases, the life of our patient depends. For more than twenty years, I have examined the state of the liver as constantly as that of the pulse, and often derived more important information from the former than the latter examination; a proof of the extent of the vital sympathies of this organ.

I could refer to many facts which strikingly illustrate the foregoing observations. It has been customary, for example, to treat all species of pulmonary consumption in the same way, and under the same treatment all are equally fatal. But it appears, from what is said of the third stage of indigestion, in my treatise on that disease, that there is a species of pulmonary consumption which originates in derangement of the liver (of all its forms, the most common in this country), which almost with certainty, in its early, and sometimes even in its advanced stages, yields to the means of restoring the due function of that organ. I could refer to many instances in which I have had the satisfaction to see the ravages of this disease, in families in which many individuals had one after another fallen a sacrifice to it, finally checked by these means; for it is a remarkable fact, that I never saw both the dyspeptic and original pulmonary consumption in the same family. If one of a family labor under the former species, we may be assured, that if the disease appear in any of the others, it will be in the same form; and nothing more is required to prevent its appearance than guarding against the continuance of what is called bilious complaints; which, in consequence of the sympathy that exists between the liver and lungs, preys on the latter organ, especially where it is more than usually disposed to disease; and to this sympathy thousands yearly fall a sacrifice in these kingdoms all of whom might be saved by so easy a precaution. I have, in the preceding lectures, had occasion to refer to the hydrocephalus internus, which, having the same origin, is illustrative of the same principles, for, in nineteen instances out of twenty, it may be prevented, and in its early stages cured, by the same means. We see the same sympathy operating in diseases of the brain of a different kind which appear in advanced life, in gout and many other cases; nay, even in diseases which, at first view, appear to be wholly of a local nature, as Mr. Abernethy has shown in his excellent treatise on their constitutional origin.

It is not difficult to perceive why the vital sympathies of the liver are so powerful and extensive.

It appears from experiments, an account of which the Royal Society did me the honor to publish in their Transactions for 1815, 1822, 1827, and 1829, or which were there referred to, as detailed in my inquiry into the Laws of the Vital Functions, and many of which were repeated with a confirmation of their results by various physiologists, that through the brain and spinal marrow we can directly influence all the vital organs; that the brain and spinal marrow do not merely include the organs of the sensitive system,—not merely those by which we feel, will, and move,—but organs on which many of the functions of life immediately depend, and which are capable consequently of immediately influencing the whole of these functions; that not only are those of the heart and vessels immediately under their control, but that secretion and the other assimilating functions, in every part of our frame, are not merely, like the former, controlled by, but wholly dependent on them. It is evident, therefore, that whatever influences the vital organs of the brain or spinal marrow, may influence not only the circulation in whatever part, but all the other functions of life.

Now it appears, on the other hand, from a great variety of phenomena, that between the brain and liver there is a sympathy, which does not exist between the former and *any other* organ, for which no anatomical investigations would prepare us. Melancholy

even derives its name from affections of the liver. Hence, also, the sick headaches and other affections of the head, which so generally attend what are called bilious complaints. The other abdominal and the thoracic viscera may be inflamed in any degree, the intellects remaining undisturbed even to the last; but delirium attends active inflammation of the liver, and more or less disturbance of the mental functions, all its affections.

Such is the influence of the liver on the sensitive organs; but its influence on the vital organs of the brain is, to the careful inquirer, still more striking. Not only chronic but acute disease of the brain, often has its origin in affections of the liver; and, on the other hand, the latter is more than any other distant organ influenced by the state of the brain. Even mental affections immediately influence its secreting powers; and when long continued, often wholly disorganize it.

When this intimate connexion between the brain and liver is compared with the results of the experiments just referred to, we at once perceive how ready a channel is opened, by which affections of the latter organ may influence the assimilating functions in the remotest parts of our frame; and it need not surprise us when we find that obstinate affections of the digestive organs (the obstinacy of which, it appears from facts I have had occasion to adduce in my treatise on Indigestion, and that on Minute Doses of Mercury, chiefly arises from the state of the liver), are capable of inducing any diseased action in any part, to which, by peculiarity of constitution or other causes, the patient happens to be predisposed; and that the disease thus produced proves unmanageable, if the affection of the liver, on which it depends, be overlooked. I have often seen diseases, which at first view appeared to have no connection with the state of this organ, resist all the usual means, till its affection was detected and relieved, and then readily yield to them.

The intimate sympathy between the brain and liver, howeverpowerful as it is, is not the only cause of the extensive influence of the latter organ in the vital system. In my treatise on the Influence of Minute Doses of Mercury in Restoring the Functions of Health, I have entered at length into this subject, and pointed out the various circumstances which contribute to render the influence of the liver so extensive, and bring the progress of disease so much under its control; among the most important of which is the peculiarity of the circulation in this organ, which, independently of its sympathies, gives it an immediate influence over the whole extent of the alimentary canal; and from the intimate sympathy between this, which may be regarded as the internal, with the external surface of our bodies over this surface also; the state of these surfaces more, perhaps, than any other cause, influencing that of health.

To what cause but the extensive connexions of the liver, can we ascribe the fact that, in sultry climates, where the sympathies are most active, all diseases, whether acute or chronic, slight or severe, tend to its derangement; and its more severe affections, by a law of sympathy, which I shall presently have occasion more particularly to consider, relieving that of other parts, most serious diseases in such climates, and, indeed, all, I may say, of long continuance, terminate in permanent derangement of this organ.

The attentive physician may observe the same tendency, though less marked, in the diseases of temperate climates; for even in such a climate as our own, in what serious disease, particularly if it be a disease of continuance, is not a disordered state of the liver a more or less prominent feature; but in temperate climates its affections, from the cause just mentioned, being neither so severe nor obstinate, more rarely become permanent, and consequently, for reasons I have explained at length in my treatise on Indigestion, are less apt to divert disease from other parts.

It must be reckoned among the circumstances tending to obscure the cases which depend on distant sympathies, that diseases of the part originally affected, not at all in themselves formidable, often, in consequence of a greater tendency to change of struc-

ture in other organs, excite the most formidable diseases in distant parts; and we are still farther perplexed, in consequence of the operation of the law just referred to, that when disease fixes on one part, it is often diverted from others, on the same principle that an artificial disease excited on the surface often relieves an internal part.

Thus it is by no means uncommon for a disease excited by a disordered state of the liver, to relieve the affection which caused it, when, as generally happens in our climate, the latter has not gone so far as materially to affect the structure. In dyspeptic consumption, for example, the liver often resumes its healthy functions, while the disease is destroying the texture of the lungs; so that on examination after death, the only traces of disease found in the liver are the consequences of affections which had existed in it, but been relieved by the supervening disease, and which are often so slight as to be overlooked by those not aware of the nature of the case.

The liver being the organ in which the vital sympathies are strongest and most extensive, their effects are best illustrated by its affections and their consequences. But there is no organ to which, in a greater or less degree, similar sympathies do not belong. We can detect them in a striking degree in affections of the kidneys, bladder, uterus, &c., and in some degree in all parts of our frame; and consequently few diseases of long standing are confined to the parts in which they originate. Thus it is that by continuance, disease is rendered doubly pernicious, obstinate by the power of habit, and by that of sympathy complicated; and many which, in their early stages, betray no formidable tendencies, often, in their progress, involve all the powers of life.

Although in so many instances the most powerful sympathies exist between distant parts, it is between neighboring parts that sympathy is universal. Hence it is that if it be our object to relieve an internal part by local abstraction of blood, or by exciting disease of the surface, these means must be employed in the neighborhood; and they are the more effectual the nearer to the seat of the disease, and of little or no effect if confined to distant parts, unless a peculiar sympathy exist between them and the seat of the disease, or the artificial disease be of such continuance as to influence the general state of the habit. We see these observations strikingly illustrated in the phenomena of sympathy, detailed in an early part of this paper.

We cannot trace the circumstances on which particular sympathies depend, but we may readily perceive some of those by which they are modified in different individuals. In all, the sympathies of the stomach in the sensitive, and those of the liver in the vital system, are the most powerful; but the part most liable to suffer secondarily is different in different individuals. This evidently depends on certain parts in certain individuals being most inclined to disease. Those of consumptive parents, for example, are most liable to disease of the lungs; of gouty parents, of the joints. If an organ has been inflamed, it is for some time apt to be inflamed again, when powerful sympathies are operating, &c. The cause which more or less affects the whole is felt most in the weakest part, and its effects on that part withdraw its influence from others.

It would be easy, by multiplying instances, to show how extensively the laws we have been considering influence the character and progress of diseases, modifying the most recent, and rendering the continued complicated and obscure; and consequently how essential to the beneficial treatment of both is the study of those laws, which, however modified in particular cases, are in their great outlines the same in all

NOTICE OF DR. EDWIN HARRISON'S MODE OF DISTINGUISHING THE BOUNDARIES OF THE LUNGS, LIVER, &C. BY INSPECTION OF THE CHEST.

By Dr. C. J. B. Williams.

Within the last few years the physical signs of diseases have been continually receiving additions from several zealous and intelligent pathologists, both at home and abroad; and although even with these new aids perhaps none of us will speak on these subjects with the confidence which characterizes the writings of the sagacious but too sanguine discoverer of auscultation, yet the general knowledge of physical diagnosis may be fairly said to be considerably more extended than it was in his time. But the very extent of this knowledge becomes in practice no small obstacle to its being attained or used. The multiplicity of matters requiring attention, and the care and time necessary to make a physical examination unequivocal or satisfactory, have thrown many an impatient student back on the general symptoms, uncertain and fallacious as they are now known to be. Any mode of abridging or facilitating examinations which are tedious to the patient and laborious and perplexing to the physician, is therefore especially worthy of attention; and if it should have no other than these advantages, they are sufficient to recommend the simple fact which has been lately pointed out to myself and others by Dr. Edwin Harrison, at St. George's Hospital, and which, as far as he knows, has never before been noticed.

When the naked chest is viewed in a good light, certain depressions and elevations may be observed, especially at the lower lateral and anterior parts, which are independent of the inequalities of the ribs. These Dr. Harrison considers to indicate the general shape and position of the contained organs, and he expects (I think with reason) that the observation of them may be of material use in exploring diseases of the chest. Thus the prominence caused on the right side by the liver gives a pretty distinct representation of the parts of that organ that are in contact with the walls of the chest; and the depression or furrow, which is discernible above it, generally marks the commencement of the lungs. This depression does not accompany the line of the ribs, but where it happens in its course to run between two ribs, that intercostal space is deeper than others. Above this furrow percussion will give the resonance of the lung; below it, the dead sound of the liver; and the distinction is generally plain enough to the eye to enable us to point out, before hand, what will sound clear and what dull.

On the left side there are also inequalities, which in a general way indicate the position of the several subjacent viscera, but not, as far as I have been able to judge, so accurately as those on the right side.

I refrain at present from entering into further details, and from dilating on the physical and pathological bearings of these matters, both because I have yet had little experience of their applications, and because the chief object of this communication is to announce them to the profession as original observations of my friend Dr. Harrison, whose peculiar repugnance to authorship deters him from doing so himself. He is investigating the matter further, and liberally wishes that others may be enabled to do so likewise, that the true value of these facts may be speedily estimated.—*Med. Gaz.*

Half-moon Street, Sept. 23, 1835.

LECTURES ON DISEASES OF THE RECTUM.

Delivered at St. George's Hospital, by Sir B. C. Brodie, Bart.

Abscesses connected with the Rectum—Fistula in ano.

I have already mentioned two kinds of abscesses which occur in connexion with piles. First, an abscess forms in an external pile, and bursts externally. Sometimes

it will heal and not form again; at other times it will heal, and then form a second time. I stated that the shortest way of curing this kind of abscess was to excise the pile in which it is situated. Secondly, an abscess forms in internal piles, which bursts into the cavity of the rectum; and this sometimes heals spontaneously, and sometimes not. When an internal pile, in which an abscess has formed, becomes protruded externally, you may remove it either by the scissors or by ligature; or where that cannot be done, the patient may be cured by a long continued course of Ward's paste, or *confectio piperis composita*. Then I mentioned, in a former lecture, abscesses which occur in connexion with stricture of the rectum, or with malignant and other organic diseases of that organ. None of these, however, are the abscesses which terminate in the disease commonly called *fistula in ano*.

Abscesses which become fistulous generally occur in persons of costive bowels. Those who have been long subject to piles are more liable to them than others; I suppose in consequence of the inflammation originally occurring in the pile extending to the neighboring textures. Sometimes this inflammation, which precedes the formation of such an abscess, occasions the patient so little pain that he is hardly conscious of any disease existing in the part. I remember a gentleman in whom an abscess formed by the side of the rectum, and who was not conscious of any local symptoms. But he had been for some time subject to headache, was languid, forced to go home and lie down in the middle of the day. One day, walking in the streets the abscess burst; and that was the first thing which gave him any notion of its existence. In general, however, the abscess forms, attended, in the first instance, by a moderate degree of pain, and some tumefaction and induration are perceptible in the neighborhood of the anus. The inflammation goes on, the pain and tenderness become greater, the induration more extensive, and at last the parts are so painful and tender that the patient can scarcely walk. The system sympathizes with the local inflammation, and the pulse becomes frequent, the skin hot, and perhaps the patient has rigors. Thus the symptoms run on until the abscess bursts. Sometimes it bursts into the rectum, and not externally; more frequently it presents itself externally, and bursts at a little distance from the anus. In many cases the abscess communicates with the inside of the gut, and opens externally also. As soon as the abscess has burst, the symptoms are all relieved. The pus which is discharged is seldom healthy, like that formed in an abscess situated elsewhere. For the most part it is dark colored, putrid, and offensive. Whether these qualities are given to the pus in consequence of a small quantity of fæces penetrating through an aperture in the mucous membrane into the cavity of the abscess, or whether it is that there is any transudation of fæculent matter, or gas, through the mucous membrane, without there actually being an aperture in it, I am unable to determine. I think it very likely that in many cases, at least, the offensive quality of the pus is to be attributed merely to transudation. I have known many facts which prove that transudation, to a certain extent, takes place in living bodies as well as in the dead subject. For example, a gentleman had an encysted tumor in the neck, which contained cheesy matter, such as is found in the common subcutaneous encysted tumors. This cheesy matter had become rancid, and when the tumor was dissected out the smell was exceedingly disgusting. Before the operation, the effluvia penetrated not only through the coats of the cyst, but also through the skin of the neck; so that you could scarcely bear to stand near the patient: I mean that you could smell the rancid contents of the cyst, when the cyst itself and the skin over it were entire.

When the abscess has burst externally, it sometimes heals as any other abscess would do. This, however, is only an exception to a general rule. For the most part the orifice of it remains open, and it continues to discharge a little matter; or if the orifice

closes, it is only for a time, the matter being again collected at the bottom of the orifice, and the skin once more ulcerating. In the course of time the margin of the orifice becomes hard and projecting, a sort of button or tubercle being formed round it, and it is while in this state that the abscess is said to be converted into a *fistula in ano*.

I say the general rule is, that this kind of abscess does not heal. But abscesses in other situations do, unless there is some particular local cause operating, or the patient's general health be bad. An abscess may be prevented from healing by a portion of dead bone, by a diseased gland, or by a piece of dead tendon or ligament at the bottom of it. But what is it that prevents an abscess from healing that forms by the side of the rectum? Here is a preparation [presenting it] which I think will explain how this happens. Here has been a *fistula in ano*; the mucous membrane has been dissected off, and a piece of bougie has been passed into the *fistula*. The fibres of the sphincter muscle pass over the bougie, and they pass under it also, so that, as you perceive, the sinus in fact is in the substance of the sphincter muscle; and I am certain that that is generally the case. If you look at the position of the sinus in the living person, you will be satisfied that for the most part it runs through the sphincter muscle; and dissection, as you have seen, confirms the observation. The sphincter muscle is constantly in motion, contracting and dilating, and consequently there is not the repose which is necessary for the cure of the abscess. The action of the muscle, in fact, prevents the abscess from becoming consolidated. In illustration of the effect of muscular action in preventing the healing of an abscess, I may mention this case:—"A man was in the hospital on account of an abscess which burrowed in the muscles of the thigh. There was no lodgment of matter, no dead bone, no diseased glands at the bottom; but the abscess penetrated in various directions among the muscles, and they were in constant action around it. As long as the patient was walking about and using the limb, the abscess never healed. I put him to bed, and kept the limb in a state of perfect repose, as if the bone had been broken. Under this treatment the abscess, which would not heal before, healed readily. .

I have said that the abscess forms in the vicinity of the gut. But it may extend in any direction; so that there may be a very large abscess running all the way from the rectum to the *nates*. Such an extension of the abscess makes no alteration in its character; it is still a *fistula in ano*.

An abscess sometimes forms high up by the side of the rectum, above the sphincter muscle; but this is of comparatively rare occurrence. These abscesses attain a very large size before the patient suffers much pain or inconvenience. There is at first merely a sense of bearing down of the rectum, occasioned by the pressure of the abscess on it; but as the abscess increases in size, the patient has violent painful spasms, and a constant feeling as if he wanted to pass a motion, while there are no fæces in the bowel. His sufferings are now excessive. You examine the external parts, and you see nothing. You introduce your finger into the rectum, and there you perceive the abscess pressing on one side of the gut, and very much diminishing its diameter. Having thus ascertained the position of the abscess, if you examine the external parts again, although you could discover nothing in the first instance, you will probably be able to detect it, deep-seated as it is, at the side of the anus. More resistance will be offered to the pressure of the finger here than elsewhere; or if you introduce two fingers of the left hand into the rectum, which you may easily do, and press on the abscess from within, you will make it actually bulge a little externally. These abscesses high up by the side of the rectum give the patient an extraordinary degree of suffering, and that for a great length of time. If left to themselves, they generally burst into the rectum. It is your business, as I shall explain to you hereafter, to give the abscess an opening externally, before it has made another opening for itself.

I have told you that abscesses of the rectum occur in persons who are costive, and have been the subjects of piles; but I have no doubt that sometimes they are produced by foreign bodies penetrating through the mucous membrane of the bowel and sphincter muscle into the cellular membrane. I was sent for to a gentleman who had a very uneasy feeling in the rectum. I thought he labored under internal piles, and prescribed him something which, however, did not relieve him. The next day, as he was no better, I examined the rectum, and found a hard substance sticking in the mucous membrane. With some difficulty I extracted it, and found it to be part of the core of an apple, which the patient had eaten the day before. Suppose this had not been extracted, the apple core, having penetrated through the mucous membrane, would have produced an abscess by the side of the gut. I was sent for to another gentleman, a year or two ago, with a very large abscess formed by the side of the gut. He suffered a great deal of local pain; had a very frequent pulse, brown dry tongue, very hot skin, and typhoid symptoms. I opened the abscess, and let out a quantity of very putrid offensive matter, which sufficiently explained the typhoid symptoms under which the patient labored. After I had opened the abscess, I introduced my finger into the cavity, and, sticking across it, I found a long fish bone, which I extracted. The fish bone had evidently penetrated through the mucous membrane of the bowel, and in all probability some small portion of feculent matter had passed by the side of the fish bone, thus accounting for the remarkable putridity of the matter.

A fistula in perineo is a very different affection from a fistula in ano. It is an abscess communicating with the urethra, and the urine flows through it when the patient makes water.

It is generally caused by some obstruction in the urethra, and all that is necessary for its cure is to dilate the obstructed canal.

Sometimes, however, a fistula in perineo is complicated with the disease of which I am now treating. I have seen of this only a very few examples. One of these is a patient in the hospital at present. This man had, if I remember right, a severe attack of gonorrhœa. This was followed by an abscess communicating with the urethra, which, instead of making its way directly to the perineum, ran (I suppose) behind the triangular ligament of the perineum to the rectum, and then again burrowed in front of the latter and at last burst by the side of the anus; so that it had all the characters of a fistula in ano, though it communicated at the same time with the perineum and urethra.

I have mentioned that abscesses connected with the rectum may occur in persons in the best state of health. But those who are in bad health are more liable to them than others. They occur frequently in connexion with disease of the lungs; patients laboring under tubercles and abscesses of the lungs being very liable to abscesses by the side of the rectum, which have all the characters of common fistula in ano. You should always take care, before you operate on a patient for fistula, to ascertain whether the lungs are sound. Persons with diseased liver and other visceral diseases, are also liable to the formation of these abscesses. The distinction of these cases from those which occur in otherwise healthy subjects, is very important, inasmuch as the practice which is proper in the one case is quite improper in the other.

I have said that for the most part an abscess by the side of the rectum has no disposition to heal. What, then, will happen if you do nothing in such a case? The fistula will remain open, sometimes discharging little and sometimes much; the orifice alternately closing and opening. I have known several cases in which a neglected fistula has continued in this state for years. This, however, is what ought not to be allowed, for *sooner or later* the day of reckoning comes, and the fistula, which was a trifling disease *originally*, assumes a formidable character. A gentleman who had had an abscess by

the side of the rectum for twenty years, and it went on as I have mentioned, sometimes discharging a little matter, then stopping, and then discharging again. Some three or four months before I was consulted the external orifice closed, and did not open again as usual. By and by he began to suffer a great deal of pain, became exceedingly ill, and I was sent for to see him in the country. He appeared to be all but dying; he was not in *articulo mortis*, but I do not think he would have lived twenty-four hours longer. I examined the rectum, and satisfied myself that there was one of those large deep abscesses which I have just now described. I introduced a lancet by the side of the gut, and thrust it in quite up to the handle before I could reach the matter. I was sure of the right direction of the lancet, and carried it onwards until I succeeded in my object. When a little matter had escaped, I introduced a probe-pointed bistoury, and dilated the orifice freely. Immediately there flowed a pint or more of matter so putrid as to cause the whole house to stink; so that you could smell it in every room. This operation saved the patient's life. It was necessary on a future day to enlarge the opening still further into the rectum, because the matter did not escape with sufficient freedom; but from that time the patient went on well. This monstrous and dangerous disease had been produced in consequence of the neglect of a trifling affection, which might easily have been cured in the beginning.

A fistula in ano is sometimes a simple fistula, such as I have before mentioned. It may communicate with the gut and not open externally; or vice versa; or it may open externally, and communicate with the inside of the gut also. But sometimes the fistula is complicated, so that there is a sinus in one direction, and a second in another. There may be even three or four different sinuses produced, by the abscess burrowing first in one direction, and then being stopped and burrowing in another; thus pursuing a circuitous course until it finds its way to the surface. I have adverted to a case in which a common fistula in ano gave rise to the formation of a large deep-seated abscess, high up by the side of the rectum; and I have no doubt that many such deep-seated abscesses are formed in this manner. Sometimes, in attempting to cure what seems to be a common fistula, you find that it does not get well as usual, and then at last you discover a large abscess above, which prevented the closing of the smaller sinus below.

Treatment.—When inflammation takes place by the side of the gut, such as you might expect to terminate in abscess, it will do so in most cases in spite of all your efforts to prevent it. There are however, some exceptions to this rule; I have every now and then known a patient who has been thus threatened put on leeches and keep quiet, the inflammation subsiding afterwards without suppuration; but in nineteen cases out of twenty the abscess sooner or later forms. If you are called to the patient quite early in the disease you may put on leeches, keep him quiet, and give him the small chance of preventing suppuration which this treatment will afford; but otherwise your best plan is to poultice the part, foment it, and encourage the formation of matter as much as possible. When you are satisfied that matter has formed, the sooner you open the abscess the better; for the longer you leave it the more mischief will the matter do, by burrowing in the neighborhood of the gut. You need not wait till the matter can be felt externally; if the symptoms indicate that matter has formed, and you feel the hardness externally, you may venture to introduce your lancet. Bear in mind the anatomical position of the parts, and you will be able to introduce a lancet with perfect safety, until you reach the cavity of the abscess, even although it be very deep seated.

I have stated that the abscess sometimes heals, but that it generally does not, and that then it forms a fistula. What are you to do in this stage of the disease? how are you to heal the fistula? It was formerly the custom to dissect out all the hard callous parts around the abscess, and a most frightful operation it was. I believe it was Mr. Pott who

made this great improvement in this department of surgery, by showing that such a dissection is quite unnecessary, and that all that is required is, to lay the abscess freely open into the bowel. If you look at this preparation [presenting it], I think you will see how it is that this simple operation is sufficient to produce a cure. The matter runs freely out of the abscess, and yet the patient does not get well, because, as I told you, there are the fibres of the sphincter muscle constantly acting on the abscess, and preventing the healing process. When the abscess is laid open, the fibres between it and the bowel must be divided and the sphincter muscle being thus set at liberty, not only is there a free and immediate escape of the matter, but the action of the muscle, which prevents the healing of the abscess, is put an end to. This, then is the mode of curing the abscess: lay it open into the bowel, dividing at the same time the fibres of the sphincter muscle which lie over it.

But before I proceed to describe the operation in detail, and to explain all the various circumstances which require to be attended to, as connected with it, I must speak to you concerning the cases in which the operation is, and those in which it is not, proper to be performed. It may be performed in healthy persons, but not in those who are in a state of disease. The operation is proper if the rectum be otherwise sound, if the lungs and the liver be sound, if there be no organic or visceral disease; but if the rectum be not otherwise in a healthy state, if there be stricture, carcinoma, or any other disease of this organ, the operation ought not to be performed; for under these circumstances the sinus will not heal, even though it be laid open. If the patient labor under visceral disease, it is seldom that the abscess will heal; but if it should, the visceral disease will make increased progress, and the patient will die sooner if the operation be peformed than if it were let alone. If a person come to you with fistula in ano, and he looks as if he labored under some other disease, always inquire into the state of his general health, and take care never to perform the operation except when you are satisfied that his health is good.

CLINICAL LECTURES.

Delivered by Robert J Graves, M. D., at Sir Patrick Dun's Hospital during the Session of 1834-5.

Gentlemen,—I shall refer briefly to some points connected with the case of an old man in the chronic ward, who died lately of inflammation of the lung. At the period of his admission, he had been ill for some time; both sides of the chest, but particularly the left, sounded dull on percussion; he had extensive bronchial respiration and crachet rouille, in fact it was a very bad case of double pneumonia, a disease which at his time of life is very seldom cured. We did all we could to arrest the progress of the disease; we cupped him over the left side, gave him mercury so as to affect his system, and applied blisters to both sides of the chest, anteriorly and posteriorly. These were the only active measures which remained for us to employ; from the man's age, the weakness of his pulse, and the duration of the disease, we could not venture on general bleeding; we could only attack the disease with local depletion, mercury, and counter-irritation. All these remedies were applied with great diligence, but unfortunately proved incapable of checking the disease. His cough continued, respiration became more difficult, and though his mouth became affected, the dulness on percussion increased day after day; and though the patient was removed into a warmer room, and every attention paid to his comfort, it was evident he was getting gradually worse. About a fortnight after his admission, his expectoration assumed the purulent character, and it was obvious that the lung had passed from the stage of hepatisation into that of interstitial suppuration. He took the decoction of polygala, with Iceland moss and syrup of white poppies, but without any relief to his symptoms: the disease increased, and he died on the 19th, sixteen days from the date of his admission.

On examining the lung the ordinary phenomena of pneumonic inflammation were dis-

covered; parts of the lung were in the state of grey hepatisation, other parts were infiltrated with pus, and broke down easily under the finger. We found too, that he had not only pneumonia, but also extensive pleuritis and pericarditis. The pleurisy had probably commenced about eight or nine days before his death; the pericarditis was of an origin somewhat more recent.

You may ask why I did not recognise these affections before death. The reason is two-fold. The man was in a very weak and hopeless condition, and both sides of his chest were sore from the blisters; these are circumstances under which I have strong objections to torment a patient with examinations, and therefore I made none in this case. The other reason is, that in a patient who has been greatly reduced by some acute disease, new inflammations are apt to spring up with great rapidity, and with still greater latency. I remember a very remarkable case of the same description which occurred at the Meath Hospital, where the patient had a very extensive inflammation of the pleura with exudation of lymph and effusion of a considerable quantity of fluid, and yet not one of these symptoms were recognised during life. This man, you will recollect, never complained of pain in the side, nor had he orthopnœa, irregularity of pulse, lividity of countenance, or any of those symptoms which are looked upon as indicative of pericardial inflammation, yet on dissection we find the pleura extensively engaged, lymph exuded on its surface, and a small quantity of sero-purulent effusion in its cavity; and on examining the heart, we find the pericardium covered internally with an extensive gelatinous layer consisting of lymph and puriform fluid intimately mixed together. You perceive, then, in this case a confirmation of what I have so often insisted on, that pleuritis may occasionally run through its course, unaccompanied by pain in the side, and that inflammation of the pericardium may exist without orthopnœa, irregularity of pulse, lividity of countenance, or fainting symptoms, formerly believed to be more or less manifest in every case of pericarditis. The pathology of pericarditis has been investigated but lately with the care it deserves; the labors of our French brethren have been mainly instrumental in producing its present degree of advancement. In England some valuable observations have been contributed by Dr. Elliotson and others, but they have been more than rivalled by the contributions to the diagnosis of this disease, which have appeared in the *Dublin Journal of Medicine and Surgery*. The French, indeed, have afforded the strongest evidence of the high value they attach to the essay of Dr. Stokes on the subject of pericarditis, by the transference of his entire article to the pages of the Archives Generales de Medicine. A most masterly paper, by Mr. Mayne, in the 20th number of the Doublin Journal, ought to be consulted by every one anxious to make himself master of this important subject. Indeed I have no hesitation in asserting that Mr. Mayne's paper will be found capable of bearing a comparison with anything yet written on the symptoms of pericarditis; compare it, for instance, gentlemen, with the article Pericarditis, by Dr. Hope, in the Cyclopœdia of Practical Medicine, and you will at once perceive the very great inferiority of the latter; compare it and Dr. Stokes's paper with the reports of clinical lectures delivered in London on cases of pericarditis, and you will agree with me in thinking that the writings of our countrymen yield not in merit to those of the metropolitan professors. Gentlemen, I speak not in the spirit of vanity; I do not bring these matters forward in order to flatter and augment a feeling of medical nationality; far be it from me to extol beyond their deserts the merits of Irish writers, still farther from me the wish to depreciate the labors of English authors. Let us emulate our neighbors in the spirit of honest rivalry, and not imitate the example of some London lecturers and Scotch reviewers, who—but I have done, fearing that the narrow-minded prejudices of an editor in Edinburgh, or of a few teachers in London, should induce me to forget

the favorable, the too flattering reception, which every thing of merit issuing from the press of Ireland has met with from the medical periodicals of England.

To return to our subject. Pericarditis is a disease of quite as frequent occurrence as pleurisy, and often, as in the present instance, associated with the latter; on the whole, I do not consider pericarditis as more dangerous or more difficult to cure than pleuritic inflammation, neither does its existence seem less easily ascertained. Some cases, it is true, are extremely insidious in their nature, but the same may be said of cerebritis, pneumonia and all other phlegmasiæ; usually, however, a careful and attentive physician will at once detect the existence of pericardial inflammation. When he finds that a patient has been exposed to causes capable of exciting fever, that he has been liable to gout or rheumatism, or has been actually attacked with either, then will his attention be directed to the heart if he perceives that its action is either unusually violent or irregular, or if he observes that uneasiness and oppression of chest are complained of to a degree not to be accounted for by any pulmonary lesions present; if he finds that his patient has the appearance of a person laboring under some serious disease, and that none such exists in the lungs themselves, then will he be called on to examine the region of the heart with the greatest accuracy. One of the most common symptoms of pericarditis is tenderness in the intercostal spaces over or near the heart. This is not perceived in many cases until pressure is made with the fingers. Tenderness occurs in many who do not complain of pain or stitch in this portion of the chest; when the latter co-exists with tenderness, the presumption in favor of the presence of pericarditis is still greater. The pain and uneasiness about the heart, are, as Dr. Elliotson remarks, generally increased by pressing in the left hypochondrium upwards towards the diaphragm. I must refer you to Dr. Stokes's and Mr. Mayne's papers for any analysis of the physical signs derived from percussion and auscultation, and also for an explanation of the reasons why the general symptoms are subject to such striking variations in this disease. In some you have, soon after its commencement, lividity, orthopnœa, and tendency to fainting, combined with irregularity of pulse; in others the disease runs its whole course, whether it terminates fatally or in health, without any of these symptoms; in fact, no disease is more inconstant in its characters, and none more requires the aid of investigation by means of physical signs, which, if well conducted, seldom fails to clear up all doubts. Of one thing I am certain, that inflammation of the pericardium in a person of tolerably good constitution may be generally arrested in its progress by bleeding, frequent leeching, and scruple doses of calomel. It is mere trifling on such occasions to have recourse to tartar emetic, digitalis, or the common antiphlogistic remedies. Instantly use every effort to produce the full action of mercury on the system. Apply the ointment to the axillæ; smear it over the inside of the thighs; make your patient respire the vapor of hydrargyrum cum creta as often in the day as he can bear the process, and be assured that you are pursuing the proper course. Well has it been observed by Dr. Elliotson, when speaking of a fatal case of pericarditis,—"The only chance I had to save the life of this person would have been to have pushed the mercury further. I am quite sure that more lives are saved in inflammatory diseases by carrying mercury to a great extent, than by merely having recourse to it for the simple production of ptyalism." It is to the want of decision in the practice of the French physicians—it is to their want of confidence in mercury, that we must attribute the greater mortality of pericarditis in Paris than in Dublin, for most of our patients recover, most of theirs die. Of course, gentlemen, the most unfavorable of all cases is where pericarditis attacks a person debilitated by previous sickness, such as fever, dropsy, &c. Here the disease runs a very rapid, and too often a fatal, course, and cannot be controlled. One practical remark, and I have done. Before effusion takes place into the pericardial sac never apply a blister; after it has occurred, repeated and severe blistering over and about the region of the heart is one of our best remedies.

Two years ago I had an opportunity of studying a case which subsequently proved to be an example of inflammation of the muscular substance of the ventricles, ending in suppuration and the formation of a large abscess in the ventricular parietes. This is a very rare occurrence, for the simple reason, that inflammation of the substance of the heart generally proves fatal before pus is formed. A very robust gentleman, aged 55, from the neighborhood of Wicklow, came to Dublin for the benefit of advice. He had complained of cough for many months, together with dyspnœa and palpitation of the heart; latterly he had become anasarcous, and suffered much from distress and pain referred to the region of the heart. This pain formed the chief subject of his complaint, and darted over the chest. On examination, I immediately detected hypertrophy and dilatation of both ventricles, and I announce the existence of valvular disease, inasmuch as a loud and extensive bruit de soufflet existed, together with a remarkable fremissement cataire, and a very irregular pulse. This opinion was delivered in the presence of Dr. Sherwood and Mr. Hetherington. Our patient returned to the country, where he continued to complain of pain in the heart that was at times excruciating. He died suddenly at the end of a few weeks. The results of the post-mortem examination were kindly communicated to me by Dr. Sherwood. Considerable dropsical effusion into both pleural cavities; heart exceedingly enlarged. "On slitting open the pericardium, I found (says Dr. Sherwood) that the heart adhered to its entire surface by means of bands of coagulable lymph, which were easily broken down except at the apex of the heart, where they were very strong and firm. In attempting to break them, more than two ounces of purulent matter escaped into the cavity of the pericardium, which caused me to institute a very close examination of the parts in order to discover whence the pus came. I found a small rent in the apex of the heart immediately below the floor of the left ventricle, exactly in the situation of the firm adhesions before spoken of. On enlarging this opening I discovered a cavity in the substance of the heart with a regularly-defined wall, capable of containing more than two ounces of fluid. The walls of both ventricles were enormously thickened; all the valves were more or less affected; but the chief disease lay in the semilunar valves of the aorta, which were nearly altogether ossified.

This case, gentlemen, was extremely remarkable, and exhibits an example not merely of the dropsy and dyspnœa which so usually attend hypertrophy and valvular disease of the heart, but also of a combination of chronic pericardites and chronic inflammation of the muscular substance of the ventricles, ending in the very rare termination, abscess.

Having made these observations, I shall next call your attention to the disease of Francis Thorpe, which is important both in itself and from the circumstance of such cases being frequently met with. This lad, who was much exposed to the weather being an outside servant, was attacked about six months ago with cold, followed by hoarseness and sore-throat, with cough, then slight, but at present rather troublesome. A certain degree of rawness about the fauces was observed soon after the attack, and latterly the submaxillary glands have become slightly enlarged. On looking into the throat, the velum and fauces appear redder than natural, the amygdalæ are swollen, and the mucous membrane covering the back and sides of the pharynx is dry and covered with irregular superficial excoriations. The hoarseness still continues, and he can only speak in whispers. His general health, however, does not seem in any degree impaired; he has no fever, his appetite is good, and his sleep natural.

This case however is one which demands particular attention. A boy is attacked with cold, he gets slight local inflammation of the fauces and larynx; this produces cough and hoarseness, which go on for months rather increasing than diminishing, and his symptoms finally assume a chronic and intractable character. Still he does not fall away in

flesh, has no symptom of hectic, and, on examining his chest, you cannot find any evidence of the existence of tubercles. In making the prognosis in such a case, you should always act with great caution. Though an examination of the chest should detect no distinct sign of tubercles, and a review of the state of the constitution should satisfy you that there was no fever, night sweats, or wasting of flesh, yet the obstinacy and persistence of the inflammatory condition of the larynx and fauces would seem to show that the affection, though not decidedly of the scrofulous character, was still very analogous to it, and might end in phthisis. You should not be so sanguine as to anticipate a certain cure, because the cough and laryngeal symptoms are unaccompanied by fever, or by stethoscopic phenomena indicating the approach of phthisis. The disease, by fixing itself in the larynx and keeping up a constant irritation in the neighborhood of the lungs, would probably, after some time (if exacerbated by fresh colds, and confirmed by neglect), give rise to tubercular development.

Allow me to allude here briefly to a form of chronic laryngeal inflammation which has been described under the name of phthisis laryngear. Of this disease there are two varieties. In one case the hoarseness and sore throat follow the development of tubercles in the lung, in the other they precede it. Consumptive persons very frequently get, shortly after the occurrence of scrofulous inflammation of the lungs, sore throat, hoarseness and laryngeal cough. But this is different from the hoarseness and cough which precede phthisis. In the former the laryngeal symptoms are secondary, and form only a part of the general disease; in the latter, they constitute the first link in the chain of morbid action. The former take place only in a constitution decidedly scrofulous, the latter occur most commonly in constitutions which have been impaired by various debilitating causes, and thereby rendered analogous to, or identical with, the scrofulous. One disease, however, explains the other, for it is clear that if a certain state of the constitution is capable of occasioning scrofulous inflammation of the lungs and tubercular development in the pulmonary tissue in the first instance, and laryngeal disease in the second, it is clear, I say, that the order of succession may be very easily inverted, and that in such a constitution the accidental circumstance of a cold falling on the larynx may determine the appearance of disease in that part long before the lungs become engaged. Hence, whenever you are called on to treat a case of chronic laryngitis, where the disease has lasted for any length of time, and where the patient's system has been impaired by any debilitating cause, or where you have any reason to suspect that he is of a strumous diathesis, your prognosis should be always guarded.

You should not however give up the case at once, particularly if an examination of the chest assures you that there is no scrofulous deposition going on in the lung. In the first place, endeavor to remove the inflammation of the throat if possible; by doing this you will accomplish a vast deal; and in the next you should direct all your efforts towards improving the state of the constitution, for in this way you make the greatest progress in checking the tendency of the individual to scrofula. If there be much tenderness of the larynx on pressure, as you can easily ascertain by placing your finger and thumb on each side of the thyroid cartilage, pressing the larynx backwards, and moving it from side to side, you should commence with a local detraction of blood. A small number of leeches should be applied to the throat every second or third night, and this should be continued for a week or a fortnight. If there be no tenderness of any amount, and the patient can bear pressure freely, there is no necessity of applying leeches. Your means must then be confined to those remedies which act immediately on the diseased mucous surface, and for this purpose, one of the best applications is a solution of nitrate of silver, ten grains to the ounce, or a solution of the sulphate of copper, in the same proportions. The best mode of applying it is to take a probang, or a small piece of sponge, fastened to the end of a

quill, dip it in the solution, and having slightly squeezed it to prevent the fluid from dropping, touch the excoriated and red parts of the fauces as far as you can conveniently go rather by pressing the sponge gently against the inflamed mucous membrane than by rubbing. It will be essentially necessary to touch every portion of the diseased surface of the pharynx, for if any part be omitted, it will have the effect of keeping up the disease. You perceive the object here is to change the action of the mucous membrane. By acting powerfully in this way on the mucous membrane covering the pharynx, fauces, and entrance of the larynx, you will often succeed in bringing on a healthy action, which spreads to the parts in the vicinity. Of this we have an illustration afforded by the results of treatment in chronic disease of the skin, where local applications to a particular part not only cure that part, but also extend their influence to a considerable distance on every side. It is the same with respect to irritation or inflammation of the lower part of the digestive tube; the use of astringent injections, which can only affect the lower part of the rectum, is often found of essential service in relieving dysenteric affections of the colon.

In addition to the use of the nitrate of silver, we have employed a remedy in this boy's case which has been found beneficial in several instances, where no sign of pulmonary irritation is present—I allude to the use of iodine inhalations. This was also intended to make a still further change in the condition of the diseased mucous membrane. It is made by putting from five to ten drops of the tincture of iodine, with half a drachm of tincture of conium, and four ounces of hot water, into an inhaler, and making the patient draw the vapor into his throat for about ten minutes, every night and morning. This form of inhalation proved extremely serviceable in the case of a gentleman who has attended my lectures this winter. About the commencement of November, while in a delicate state of health, he was attacked with cold, and got sore throat, followed by slight huskiness of voice, and hard, incessant, laryngeal cough. These symptoms continued during December and the greater part of January, and were not completely removed until the beginning of February. He had considerable rawness of the back and sides of the fauces and larynx; we observed that the mucous membrane of those parts had a strong tendency to become excoriated, for whenever an exacerbation of his symptoms occurred, and that his cough in the morning was harder than usual, small portions of the detached pellicles of lymph exuded by the mucous membrane came away at each fit of coughing, and his sputa were tinged with blood. There was another symptom in this case, which you will very frequently meet with in similar instances, namely, a remarkable feeling of chilliness in the integuments of the fore part of the neck and external fauces. This he was in the habit of remarking, and could always foretel the occurrence of an exacerbation of his laryngeal symptoms, by the increased feeling of cold in the cutaneous surface over the diseased parts. In this case a great deal of good was effected by the inhalation of iodine with conium. The mode in which this gentleman employed it was by dissolving from six to nine grains of the extract of conium in hot water, and then adding the tincture of iodine. Instead of the common inhaler, which contains but a small quantity of fluid, and in which the inhalation becomes cold in a very short time, he employed for the purpose a high old fashioned teapot, which contained a large quantity of fluid, and could be used for a much longer period. Under the use of this, with counter-irritation and the internal use of iodine with sarsaparilla, the laryngitis disappeared; it returned however about a month afterwards on fresh exposure, but was speedily removed by the use of the nitrate of silver solution.

Another thing which we have prescribed for this boy, and which proves an excellent adjuvant in the treatment of such cases, is counter-irritation by croton oil frictions. To an ounce of compound camphor liniment, we add twenty or thirty drops of croton oil,

and of this lotion about one or two drachms are to be rubbed over the parts night and morning until the eruption appears. Two rubbings are generally sufficient to produce a copious eruption of papulæ about the size of a pin's head, and having exactly the appearance of a disease at present very rare, the eczema mercuriale.

We have not, however, been able to effect any remarkable improvement in this boy's symptoms by the means to which I have just now alluded, and the question is, what other remedies have we left, from which we could hope to derive any advantage? The boy has no fever or emaciation, his appetite is good, his sleep regular, and the stethoscope informs us that there are no symptoms of tubercular development; we are therefore, I think, authorized in attempting to arrest the disease by the only means of which we have a choice under such circumstances. It is my intention to attempt its removal by mercury and I have therefore ordered him to take three times a day half a grain of calomel, three grains of blue pill, with a grain of the extract of conium; and instead of iodine, we have directed him to inhale the vapor of hydrargyrum cum cretâ twice or three times daily. If, however, we find that this does not produce speedy improvement of his symptoms, we shall stop it immediately, as the use of mercury in such cases is generally a perilous experiment. I shall also take care to pay attention to the general state of his health, as this is a matter of great importance in cases of chronic disease. I had almost forgotten to observe, that in such cases the use of the decoction of sarsaparilla with nitric acid has been found extremely beneficial. There is one point in the treatment of chronic laryngitis which you should never forget, and that is, to make the patients refrain as much as possible from speaking. Unless they do this you will find it very difficult to effect a cure. A person with an inflamed larynx, who exercises his voice as usual, acts as foolishly as a man who reads with inflamed eyes, or walks with a sprained ankle. The only thing I have to add with respect to the treatment of this disease is, that the patient should be kept as much as possible in an equal temperature, and hence it will be necessary in many instances to confine him to the house, or at least to prevent him from exposing himself to a cold and damp atmosphere. When he recovers he should use cold gargles and cold lotion to the throat in order to render the parts less susceptible of cold.

Allow me now to direct your attention to two cases of prurigo which have been recently admitted. The first is that of Jane Cassady, a woman advanced in life, but of tolerably good constitution considering her age, station, and circumstances. About three months before admission, a rash appeared over her arms, legs, and body, which was preceded and accompanied by pain of the stomach, head, and limbs, with recurring rigors. As far as we can learn from her description, this appears to have been urticaria: of this, however, we cannot by any means be certain, and besides it is of little consequence, as prurigo may come on without it. She is at present laboring under prurigo senilis, not thickly disseminated, but still a source of constant annoyance to her from the intolerable itching it produces. Several of the papulæ have formed dark red crusts, but this is in consequence of their bleeding from being scratched.

This affection has been so well described by writers on cutaneous diseases, and is so easily recognised, that I shall not take up your time in detailing its characters; a few circumstances connected with treatment, however, should be mentioned as deserving your notice. In the first place I may observe that prurigo is a most harassing complaint, and if not checked has a tendency to undermine the constitution by disturbing the patient's rest. The warmth of the bedclothes, by increasing the vascularity of the skin, occasions an aggravation of the symptoms; the patient passes a miserable and restless night, and rises in the morning quite unrefreshed. This in process of time gives rise to a kind of febrile condition of the system, the mouth and fauces become dry, the appetite is impaired, the secretions deranged, and debility and emaciation gradually produced. It is a

disease which has broken many a constitution, which previous to its accession was to all appearance unimpaired and healthy.

Prurigo has been confounded with common itch, but if you examine the parts it occupies you will easily distinguish them. It is most likely to be confounded with the small vesicular itch, where the vesicular papulæ (this is the most expressive term I can think of) are extremely minute. There is a papular itch, and there is also one which is intermediate between the vesicular and the papular; it is with the latter that prurigo is most apt to be confounded. The difference between them, however, may be recognised by observing the parts of the body on which they appear. Itch generally attacks the extremities, and particularly the inside of the joints, and the spaces between the fingers. Prurigo, however, does not occupy the same situations. If you examine this woman, you will not be able to find any trace of the eruption about the joints or between the fingers, and this circumstance is of itself sufficient to make the distinction, for itch would not have lasted for three months without attacking these parts. I may also observe that prurigo senilis is generally accompanied by derangement of some of the important secretions of the body, but particularly of the urine. Its appearance is in many instances preceded by a scanty flow of urine, and it is frequently accompanied by the deposition of a copious whitish sediment, which is the lithate of ammonia. This observation is worthy of attention, because it furnishes us with a hint towards the treatment of which we may sometimes avail ourselves with great benefit to the patient. You will in such cases often effect a great deal by the use of diuretic medicines, as cream of tartar with decoction of juniper berries and squill or with the more stimulant diuretics, as turpentine and cantharides. It will be also good to vary these remedies according to the circumstances of the case, and they should be always given in combination with medicines calculated to act beneficially on the digestive organs. In this case, we have given decoction of sarsaparilla with nitric acid for the last two days; before this we gave cream of tartar with powdered bark. These are some of the best medicines which can be used internally in the treatment of prurigo senilis. It is however, a very obstinate disease, and you will be often obliged to try many internal and external remedies before you can hit on one that will prove serviceable. Cooling diuretic aperients, aperients combined with tonics, and the decoction of sarsaparilla with nitric acid, these are the chief internal remedies. As to external ones, they are extremely numerous. In the present case we have, in the first place, directed the patient's body to be washed with a lather of soap and warm water every night and morning. The water for this purpose should be used as hot as the patient can bear it, and a very soft brush or sponge should be employed. In prurigo a vast deal of good has been done by merely washing the itchy parts with soap and warm water; how it acts I cannot say, but I have seen a great deal of advantage derived from a long continued perseverance in its use. After this you may have recourse to more powerful applications, such, for instance, as sponging the parts at bed-time with hot whiskey and laudanum, a pint of the former to a drachm of the latter. Here you have the stimulant effect of the whiskey, the narcotic of the laudanum, and the peculiar action of heat on the skin, all combined, and calculated, therefore, to make a very decided impression. How this effect of heat is produced I cannot tell, but we all know that, whether applied in a moist or dry form, it exercises a powerful influence over the vascularity and nervous vitality of the skin. Neither can I tell you what description of cases are most likely to benefit by it; some cases of prurigo senilis are much relieved by warm applications, others are not; you should, however, always make a trial.

There was one application used in this woman's case to which I shall briefly call your attention. A drachm of acetate of lead was dissolved in two ounces of wine vinegar mixed with the same quantity of water, and this was rubbed up with olive oil so as to

form a liniment. Mr. Nalty, who mixed up the ingredients, says that three ounces of olive oil were absorbed. You are aware that oil conducts itself with respect to the metallic oxides as it does with the alkalies. This forms a liniment which when allowed to stand separates; but its ingredients are at once mixable by shaking the bottle. From its use the woman has derived great relief, and I can recommend it to you as one of the best applications in prurigo.

Before I conclude this lecture, I shall allude briefly to the very interesting case of Sarah O'Neil. This young woman was admitted on the 17th of February, having been attacked on the 10th with fever of the ordinary type. On the day after her admission, she complained of want of sleep, and pain of the forehead and temples, but she had no raving, tinnitus aurium, intolerance of light, or other symptoms of inflammation of the brain. She had been confined about a fortnight before she came in, and complained that her breasts were very troublesome to her. Her belly was soft and fallen, quite free from tenderness or soreness, and she stated that her bowels were free. Her tongue was furred, her pulse 130, the lochia suppressed for the last two days. Things went on tolerably well for four or five days, when her belly became tympanitic, and she began to complain of pain on pressure. The action of the heart now became more violent; her pulse rose to 140, and blood began to appear in her stools. On the 24th of February, that is to say, about the 14th day of her illness, her pulse was 150, she passed a large quantity of blood from the bowels, and the tympanitis subsided.

In cases of fever accompanied by tympanitis and signs of intestinal congestion, hæmorrhage from the bowels, particularly when it occurs on one of the critical days, should not be interfered with. It is in this way that nature very frequently brings about relief of the congestion and irritation of the gastro-intestinal mucous membrane, just as she relieves congestion of the head by bleeding from the nose. In the case of a lady whom I attended along with Mr. Palmer some time ago at Drumcondra, the occurrence of intestinal hæmorrhage was followed by the most marked effects; her belly became soft, the tympanitis disappeared, and all her febrile symptoms were speedily removed. The appearance of blood, therefore, at such periods, and under such circumstances, is to be looked on as a favorable occurrence, nor should it be interfered with in any way, until from its continuance or its quantity it appears likely to produce debilitating effects. In the present case, however, this hæmorrhage will require to be very carefully watched. The woman's system is in that state which is favorable to profuse fluxes of blood, for it is not long since her accouchement, and she has had suppression of the lochia. She has had but little fever for the last two or three days, but the action of the heart still continues extremely violent, and her pulse is still rising. Respiration too has been considerably accelerated, and where this occurs, you have always reason to apprehend danger. I have accordingly endeavored to moderate the hæmorrhage by the use of acetate of lead and opium. A draught composed of two grains of acetate of lead, eight minims of tincture of opium, and fifteen minims of wine vinegar in six drachms of water, has been prescribed to be taken as occasion requires. A large blister has been applied, so as to cover the epigastrium and sternum, and she has been allowed port wine and chicken broth. Where a patient, debilitated by previous fever, has been attacked with hæmorrhage, you should be careful in supporting the system by small quantities of wine, and light nutritious food, for there is always more or less danger to be apprehended of a sinking of the powers of life. In cases of this kind the cautious use of acetate of lead with opium and wine are the only means on which we can rely with any confidence.

I regret, gentlemen, that time will not permit me to make any further observations on this very interesting case; I shall, however, resume its consideration at our next meeting.

GENERAL LYING-IN HOSPITAL—MIDWIFERY REPORTS.

By Edward Rigby, M. D. F. L. S. &c.

Uterine Hæmorrhage.

FEBRUARY 24, 1834.—Susan Templeton, æt. thirty-eight, delivered of a boy; seventh child. Presentation and labor natural; child large, cord once round the neck. About ten minutes after its birth slight hæmorrhage made its appearance, and on feeling the uterus (which had been tolerably well contracted at first) it was found to have yielded considerably. After gentle friction over the uterine region, some very large clots of blood were expelled; the placenta still refused to quit the uterus, the neck of which was strongly contracted upon it. Profuse hæmorrhage then came on, and it was found necessary to introduce the hand into the womb for the purpose of extraction; this was accomplished with little difficulty. The patient was very faint, though not in a state of complete syncope. No pulse could be felt at the wrist; the extremities were cold, and she complained of numbness in them; voice feeble; face and lips blanched; eyes sunk. Sp. ammon. arom. was given, and she had some brandy in her gruel; friction to the extremities. The color then began to return to the cheeks and lips, and the voice became stronger; but it was a considerable time before the pulse at the wrist returned, and then but feebly. A firm bandage was put round the abdomen, with a compress over the uterus; she was removed to a bed in the ward, and a draught of tinct. hyosc. ammon. arom. and camphor mixture was given.

10 P. M.—Has slept a little, but the hæmorrhage returned, which caused her to faint, as nurse reports; pulse again could not be felt at the wrist, but gradually and feebly returned after taking some brandy. Cold cloths were applied to the external parts. She recovered without any untoward symptom.

It is difficult always to prove whether the non-expulsion of the placenta is owing to its not being yet completely separated, or to its being retained by contraction of the os uteri, or whether it depends partly on both causes. Professor Naegele rather deprecates the use of friction to the abdomen for the purpose of exciting the uterus to contract, as being liable to bring on irregular action of its fibres; and perhaps in this case the firmness with which the os uteri was contracted might be in part owing to the friction used. The hæmorrhage returning in about four hours afterwards shows how important a part of a nurse's duty it is to watch her patient narrowly for several hours after labor. In no case are we secure against hæmorrhage. Thus in the following case hæmorrhage came on four hours after labor, although none had occurred immediately after the birth of the child to justify our expecting an attack.

September 18, 1835.—Jane Garwood, æt. 27, delivered of a boy; first child. Labor natural and easy; second position. A fold of the cord prolapsed between the neck and perineum, but as it was not so pressed as to endanger the child's safety, the expulsion of the body was allowed to take place by the natural efforts. Smart hæmorrhage occurred after she had been in bed four hours; it was easily repressed by cold applications and diminishing the quantity of bedclothes, and did not return (the night was sultry).

There can be little doubt but that this attack of hæmorrhage was in a great measure produced by the heat of the weather. Nurses are too ready to "cover a patient up comfortable," as they call it, which is little else than to keep her in a reeking perspiration; and nothing is more likely than this to produce inertia uteri.

Hæmorrhage thirty-six hours after Labor.

The next case of hæmorrhage is still more remarkable, it having come on thirty-six hours after labor. It was a twin case, and in the debilitated constitution of an habitual gin drinker, proved fatal. My friend Dr. Barr has furnished me with the report.

"February 10, 1834.—Sarah Grieve, delivered of twins (girls); fifth labor. The first child presented with the head, second with feet; former rather larger of the two. Not much above ten minutes elapsed between the birth of the one and the other. The placentæ were not adherent throughout their contiguous edges, a portion in the centre being left unattached. But little hæmorrhage followed their expulsion, although there was a considerable discharge of liquor amnii. She is a pale unhealthy-looking woman, very fretful and spiritless, has been out of health for the last few months, and much troubled with cough and mucous expectoration. About thirty-six hours after delivery she was attacked with rather a profuse flooding, felt weak and faint; the nurse said that a minute before I saw her she had fainted away. Cold water was dashed on the face, and wet cloths applied to the hypogastric region. Cold vinegar and water was injected into the vagina after the removal of rather a large coagulum, and the abdomen was tightly bandaged. The hæmorrhage at length ceased, after returning somewhat at intervals, being especially excited by the cough. She had some refreshing sleep after taking 10 gr. of ext. hyosc. and 5 gr. of ext. conii.

"13th—Feels very weak: dozes a good deal, but tosses about much; cough very troublesome; pulse 140, bounding, but compressible; skin hot and dry; tongue clean and moist; is thirsty; bowels moved twice during the day. Sound on percussion over the chest clear.

Mist. Salin. c. Vin. Antim. 4tis horis.

"14th.—Much the same; complains of no pain or tenderness; no delirium; pulse as frequent, but weaker; bowels relaxed, motions sometimes passed in bed. (Dr. Rigby saw her to day.)

Ammon. Carb. gr. v.; Aquæ Menth. Pip. ℥iss. 4tis. horis. To add 10 drops of Tinct. Opii occasionally. To have some gin and water, to which she says she is daily accustomed.

"15th.—No improvement; respiration hurried, but less troubled with cough; has had slight moisture on the skin, which was only transient; eyes dull and heavy; complains of occasional dimness of sight and confusion of mind; pulse 130, soft and weak; bowels less relaxed, stools watery and curdy.

Ammon. Carb. c. Confect. Arom. and Træ. Cinchon. Comp. ex Aq. Menth. Pip. 4tis vel 3tiis horis.

Dr. Locock saw her shortly after, and ordered, in addition to the mixture,

℞ Hyd. c. Cretæ, gr. v.; Pulv. Rhæi.; Pulv. Ipecac. aa. gr. iij. ft. Pulv. bis die sum.

"16th.—Weaker; very restless during the night; complains of numbness of limbs, and general uneasiness. Early this morning had a catching pain of the side on coughing or full inspiration, which was relieved by mustard poultice. Pulse 144, feeble; skin dry; tongue moist and clean; bowels moved three times during the night, stools more natural.

Emulsion of egg and brandy.

Contin. Medicam. Capt. Liq. Opii sed. ℥ss. h. s.

"17th.—Gradually sinking. Died at 2 P. M.

Remarks.—It is curious to see what a variety of anomalous symptoms will appear in patients of this sort, who have been deprived of their accustomed stimulus, and how really serious ill they will become under such circumstances, even in spite of medical treatment. I have seen miserable pallid wretches, victims of spirit drinking, in whom, after being a few days in the hospital, there has been such debility, sleeplessness, and derangement of bowels, such irritability of stomach towards every species of food, and with such constant

vomiting and anorexia, that considerable fears were excited for their life, and where the glass of gin daily has "done more good than all the physic in the doctor's shop." I have seen cases of habitual spirit drinkers where this was even necessary on the second day after labor. It is seldom that we are made aware of this fact by the patients themselves; and I have frequently known them even deny their being spirit-drinkers. But besides the above-mentioned symptoms, there is an irritable, peevish, discontented manner, which is very characteristic. The hæmorrhage in this case effectually accounted for the appearance of debility, and lulled any suspicions respecting her intemperate habits; but I am half inclined to suspect, that could we have been aware of it, we might by a moderate supply of the accustomed stimulus, even shortly after labor, have kept up that degree of tone and uterine contraction which would have effectually prevented the attack of hæmorrhage.

Prolapsus of the Cord.

The following case was reported by my friend Dr. Barr, who turned the child.

March 31st, 1834.—Mary Lalley, æt. 26, delivered of a girl, still-born; third child. When she came in the os uteri was fully dilated; membranes projecting, and forming a tense bag during the pains. It was with difficulty the finger could reach the head, which was high up above the brim of the pelvis. When the liquor amnii came away, one or two coils of the funis were found presenting between the head and promontory of the sacrum. At all times the pulsation in the cord was but feeble, and during the pains, which were not strong, they ceased entirely. In order to give the child a chance of being born alive Dr. Rigby thought it would be advisable to turn. Accordingly I introduced my hand slowly into the uterus. After passing the head I felt a hand, and then an elbow, and still higher up a foot, which I gently brought down. The patient suffered but little from this; but though I got the foot into the vagina, the head did not go up. Dr. Rigby then passed a fillet round the ankle and pushed back the head, which required some force to make it retire. As the pains were inefficient, considerable extractive force was required to complete the birth. One arm came along with the head; the placenta quickly followed, with some large clots of blood, but the uterus soon contracted firmly.

April 1st.—In the early part of night had some difficulty in passing water; but after applying warm fomentations to the pubes, and steams of warm water to the pudenda, she passed it freely, and this morning feels easy and comfortable.

From the very feeble pulsations of the cord, even during the intervals of the pains, it was evident that as the head was so high, the only chance of saving the child's life was by turning. I rather suspect that I was in some measure the cause of the difficulty which Dr. Barr experienced in turning the child; having grasped one foot, and finding that the other was not so easily reached, I advised him to bring down the one which he had hold of; whereas, if the two feet had been brought down the child would probably have been turned more readily.

Two cases of placenta prævia have occurred; in both the placenta was but partially attached, and in neither was it necessary to turn the child.

May 13th, 1834.—Mary Owen, æt. 30, outpatient, near her full reckoning, was seized with a considerable uterine hæmorrhage a week ago; it returned again the day before yesterday. Slight pains appeared this morning, and much flooding followed. I saw her at 10 and 11 P.M.; os uteri dilated to about two inches; its anterior margin covered by the placenta; the head pressing on the os uteri. The discharge is now very slight; pulse full. I desired the midwife to keep her cool. The pains increased, and the labor followed naturally, without any further loss.

July 4th, 1834.—Anne Teeling, outpatient, reckons that she has still a month to go. Was surprised at 4 this morning by a profuse uterine hæmorrhage, which soaked through the bed; it continued for about half an hour, and made her feel very faint; it returned in an hour, but in less degree, and continued to dribble for some time. The midwife gave her an opium pill, and applied vinegar, &c. I saw her at 4 P.M.; os uteri nearly fully dilated; edge very uneven; margin of the placenta over its right and anterior edge; no discharge; head presenting in the third position; scarcely any pains; no liquor amnii; collected to distend the membranes. I gave her a dose of ergot of rye, with a little brandy, as she was extremely faint; the pains increased somewhat. Not having made water since 3 A.M., I drew off a small quantity of high-colored urine, and gave her some ammonia, as the faintness continued. In the course of an hour a little liquor amnii began to distend the membranes. I ruptured them, and a considerable quantity escaped with every pain. The pains became stronger, the head descended, and a dead child about the eighth month was born. She recovered quickly.

In the first case nothing more was necessary than to let the labor go on, and not interfere; the head had effectually compressed the placenta, and the danger was passed. In the second the hæmorrhage had been so profuse, and the exhaustion was so great, that I feared she would not have sufficient strength to carry her through. It was an intensely hot day, and her relaxed half-fainting state added not a little to the disposition she had to perspiration. Besides the brandy and ammonia, I directed a little beef-tea to be made; and by giving her a tea-spoonful or two of it every few minutes, she revived considerably.

I well recollect thinking at the time of a passage in my father's work on Uterine Hæmorrhage, which applied remarkably to this case. It is a part of the fourth case which he has recorded, and where the hæmorrhage and consequent exhaustion had been very alarming:—"By carefully attending (says he) to keep the room very cool, by preventing my patient from being the least stirred, and being myself her nurse, in giving her every few minutes small quantities of the coolest drinks, I prevented the discharge from increasing, and at the same time supplied as far as I could the waste of what she did lose, by the drinks she took being as nutritious as I could venture to give them without their being irritating."

PECULIAR RELAXATIONS OF THE UTERUS.

By F. Montgomery, M. D., Physician-Accoucheur to Sir Patrick Dun's Hospital.

When the uterus has expelled the product of conception at any period of its growth, active contraction should immediately commence, and its volume be speedily reduced to its original dimensions. But matters do not always proceed thus favorably, the uterus being liable to fall into a state of atony and relaxation. One condition of this accident, of whose existence I have fully satisfied myself in many instances, has not as far as I am aware, been noticed by any writer; the peculiarity of it being, that it continues in a chronic form, occurring most frequently after early abortions, which, however, are not necessarily connected with any loss of blood during the miscarriage; bnt when the patient is beginning to take exercise, she is unexpectedly seized with considerable hemorrhagic and leucorrhœal discharges, inducing great debility and alarming apprehensions, with, most frequently, no pain, but a sense of internal fulness, which appears to her to interfere with her passing water; she has a dull aching feel in the small of the back, and is constantly annoyed by a sensation of relaxation in the whole contents of the pelvis. On examination the vagina is found unusually relaxed, and the os uteri gaping, with its lips tumid, thickened, and projecting, soft, and flabby; the cervix is dilated, its na-

tural tapering form is gone, and the body of the uterus itself is felt to be enlarged and doughy when pressed by the finger, the organ appearing quite insensible. This condition may persist sometimes for months, with various degrees of constitutional disturbance, the discharges being sometimes so profuse as to endanger life, sometimes but slight, or only occasional, at length attracting attention more by their continuance than by the severity of the attending symptoms. Conception even is very apt to occur under these circumstances; but if the tone of the uterus is not soon completely restored, abortion will almost inevitably happen. The details of a few cases will elucidate these points.

Case 1.—In July, 1830, I was called to see a lady who had just miscarried in the second month of gestation, with profuse hemorrhage. She had miscarried twice already within the preceding six months. On this third occasion she seemed to recover well, and left her bed in a week. A tonic system of treatment now employed by me failed, and she did not cease to have vaginal discharges. I then examined the os uteri, and found it just in the state it had been in a month before, gaping open, soft, relaxed, and flabby. I recommended her to go to the sea-shore, leaving her husband behind. This was done; she took small quantities of quinine and gentian, with aromatic sulphuric acid, and bathed every day until November, when she returned home completely re-established in health, and immediately afterwards conceived, and on the 6th of the following August* gave birth to a fine healthy child, which she nursed with success. She has had two children since.

Case 2.—On the 30th of January, 1832, Mrs. V. aborted, without either pain or hemorrhage, on making water, in the third month. She had been some time before greatly startled by a hatching hen, and she now gravely asked me if I did not think what she had been delivered of was very like a chicken. At the end of a week she was able to go about as usual. Two months after the miscarriage she sent for me; from the time of the abortion she had never been entirely free from vaginal discharge, and pains, resembling slight after-pains, with vesical irritation and dysuria. I found the uterus almost exactly in the state I had felt it two months before. Tonics, free ablution of the lower part of the trunk with cold salt water, and opening sea-bathing as soon as the weather permitted, perfectly re-established her health in about six weeks, during which time she lived *absque marito*. She conceived again, and was delivered in February 1835.

Case 3.—In the middle of April 1834, a sister to the patient Case 1, and mother of six or seven children, miscarried early in the third month, with very little pain or hemorrhage. At the end of a fortnight she went to church, felt greatly fatigued, was seized suddenly with a smart uterine hemorrhage, nearly fainted, and was conveyed home. Her medical attendant next day established a rigorous system of low diet, with water for drink, full doses of laudanum, and constant cloths wet with vinegar and water; in addition to which a bag of chalk, moistened with vinegar, was introduced into the vagina. In a week matters had become much worse, and when I first saw her, she was unable to move, and almost without pulse, and shivering from being constantly soused in wet, and the mind depressed to the lowest degree of despair. I found excessive relaxation of the vagina, the os uteri so opened that it would have admitted the points of three fingers, its lips tumid, but soft and puffy, and the body of the organ enlarged and doughy. I immediately had the wet cloths replaced with dry and warm ones, and ordered a jar of warm water to the feet, a scruple of ergot of rye in warm wine; jelly, good broths, chicken, and claret; tonics as in the former cases, and removal by-and-by into the country.

* This lady told me on the 10th of December that her confinement would take place on the 5th of August; she had a few pains on the 4th, and again on the 5th, and was delivered on the 6th.

She was soon much better, but had remained in town, and conceived again in June, and again miscarried in August, when I attended her; there was little hemorrhage, but the uterus was still relaxed, which I obviated by rest in the horizontal position for several days, a generous diet, and tonics. I also prevailed on her to go to the sea-side, her husband remaining at home. By the beginning of winter she had completely recovered, returned, conceived again, and in September 1835 was safely delivered of a daughter.

These facts promise to be useful from suggesting to us, in addition to other considerations, the obvious indication of using restoratives for the general powers of the system, the local application of tonic agents, and the use of specific stimulants to brace the uterus; but the chain of morbid actions can only be effectually broken by withdrawing the individual for the time from the possibility of conception, the uterus being, as is said in agriculture, allowed to lie fallow for a season. I have had a case in which this relaxed condition of the uterus was ascertained by dissection four weeks after labor, accompanied by profuse hemorrhage.

The uterus was found considerably larger than it ought to be at such a period after delivery (one month); measuring 4¼ inches in length, and more than 2½ in breadth; its cavity would have contained an egg; the os uteri and cervix were quite open, and sufficiently relaxed to allow the introduction of my fore-finger; its parietes were about three-eighths of an inch thick, with the structure as soft and flabby as that of any other muscle in the body, so that it might be rolled round the finger, and when divided by the knife the vessels were found uncontracted and pervious.

There is a question which very often meets us in practice which it may be proper to notice here; ought patients who have experienced considerable hemorrhage in labor to be allowed to nurse? In my opinion they ought, if no other reason interfere, because the mammary excitement which accompanies the early part of lactation, propagates its influence to the uterine system, promoting their active contraction. Indeed, it appears to me very probable that chronic relaxation after early abortion (independently of hemorrhage) being so much more frequent than it is after delivery at advanced periods of pregnancy, is attributable to the want of the mammary excitement. But the nursing we may find it necessary to prohibit beyond half or a quarter of the usual period. Every day's experience convinces us, that one woman will suffer more exhaustion by three months' nursing, than will another by twelve; and one of the ill effects thus produced is, I have reason to believe, this very condition of the uterus. It is perfectly well known that when nursing disagrees, or has been too long continued, the prominent symptoms are precisely those which accompany a relaxed uterus induced by other debilitating causes, and from examinations made under such circumstances, I have learned that the condition of the uterus which I have been describing is very frequently induced in a greater or less degree. In July last I saw a lady, of apparently sound constitution, who had been nursing for nearly seven months, and presented many of the morbid effects of undue lactation, such as derangement of the digestive organs, pain in the back and left side, with almost constant slight red discharges, and occasional leucorrhœa. I found the vagina greatly relaxed, the uterus slightly descended, enlarged, and softened, and the os uteri sufficiently open to admit the end of my finger. Immediate weaning, attention to the digestive organs, tepid salt-water baths, tonics, and sea-bathing, soon completely restored her health. Dr. M. Hall says that "the uterus suffers," but he does not specify how. I have only to add to what he has said, that what "the uterus suffers" is relaxation, both of its tissue, by which its vessels are allowed to discharge their contents too readily, and of its connexions, by which it acquires a ten-

dency to prolapse; and when patients who have unduly given milk conceive within a short time they very generally miscarry.

The remedies that will do most service are in these cases preparations of cinchona, gentian, colomba chalybeates, mineral acids, country air, sea bathing, and cold topical ablution. Should the hemorrhage burst out profusely, the tampon with pressure, instantly, and the ergot of rye, are the means on which generally our greatest reliance ought to be placed. Occasionally an opiate, or the application of cold, may be used with advantage; but I cannot avoid observing, that the indiscriminate liberality with which both these remedies are applied in practice is greatly to be deprecated. A napkin is often soaked in cold vinegar and water, laid on the external parts, and removed smoking with heat; this is only a pretence of doing good. The general principle on which cold should be used, is that of its sudden application, as a stimulus to contraction, and not from its refrigerating power. With regard to the ergot of rye in cases of protracted menorrhagia, the specific action of that remedy is strongly confirmative of a belief that those discharges are often dependent on the relaxed state of the uterine fibres we have been considering, constantly leading to a suspicion of organic uterine disease, a suspicion which a vaginal examination rather tends to confirm, the organ being found increased in size, with the cervix and os uteri tumid and puffy; and I am strongly disposed to believe that this is really the condition of the uterus represented by Madame Boivin, 23rd plate, fig. 1, which she describes as "a scirrhous tumefaction of the posterior lip of the os uteri, taken from a woman who died of pulmonary consumption, after an abortion in the sixth month."

NEW TREATMENT OF CROUP.

By Dr. Kirby, Prof. of Med. in the R. C. S. in Ireland.

The attention of the profession has been very properly directed to a new method of treating croup, pursued by Dr. Lehman, Staff Surgeon at Torgan, consisting in the application of hot water to the region of the larynx, at the commencement of the disease. Dr. Lehman affirms that it has not yet failed in his hands when seasonably applied, and that it had been used successfully in several families, before his assistance could be procured. My own personal experience for nearly twenty years in the efficacy of a somewhat similar plan gives me the greatest confidence in his report, and I am encouraged to lay before the profession the treatment I recommend during the first hours of an attack of croup. I believe there is a disposition to this disease in the children of certain families; and when one suffers, I think it prudent to examine the other members of the group, and advise such precaution as circumstances may suggest.

My first advice is, that the neck shall be surrounded with a flannel bolster of hot salt quickly heated to a temperature of which the hand is impatient. A woollen stocking will do, not too tightly stuffed, to accommodate itself to the form of the parts with which it is to lie in contact. This remedy acts as a rubefacient, and much beyond the limits of its contact. The face and thorax soon become florid. The temperature of the whole surface of the trunk and extremities is soon increased, and the pulse is accelerated, with a fulness and softness which promise a copious perspiration; and when that is established, it is astonishing to witness the rapidity with which the uneasiness about the larynx, the almost pathognomic cough, and the embarrassment of respiration, disappear. A triumph over the disease has now been obtained, but the remedy is to be renewed, to confirm the advantage. Tepid drinks should also be given, and even small quantities of cold water, which is exceedingly grateful, and eagerly wished for. The medicine I uniformly prescribe is a mixture of ammonia, saturated with vinegar or lemon-juice, and a few drops of laudanum, the doses of which I alternate with two-grain doses of calomel and James's powder.

Diaphoresis may thus be continued for twelve hours. It may then be allowed to subside, by changing the application less frequently, and employing a lower temperature. But these remedies should not wholly be laid aside for two or three days, or even for more, should there be any cough, or the slightest trace of preternatural laryngeal sound. While the perspiration continues, I do not risk its suppression by purgatives; but when it has nearly ceased, I administer tincture of jalap, magnesia calcined, electuary of scammony, and water. This combination agrees well with the stomach, acts in small doses, and its operation is more certain than any other medicine I am acquainted with. The discharges are sufficiently abundant, and the whole business is soon at an end. The cough, which sometimes continues for a few days, appears to me to be best treated by low diet and mucilaginous mixtures, to which squill, hippo, and laudanum, are sometimes added with much advantage.

The annotator on Dr. Lehman's mode of practice advises the instant abstraction of blood from one or both arms, or from the jugular vein. Now, I am quite aware of the value of the abstraction of blood under certain circumstances, but experience assures me that it may frustrate the secretion of perspiration, which should be perfect; and I believe that it not uncommonly disturbs an important curative function in sudden diseases of the respiratory apparatus.

If the means I advocate disappoint expectation, and the lungs participate in the disease, the attendant distress will be alleviated by a full bleeding, and the skin may probably be thus brought into a state of diaphoresis. I remember a remarkable instance to the point. A fine child of seven years of age, and of unusual obesity, suffered from the highest inflammatory stage of croup, when I was called to perform venesection, which had been several times attempted by the persons in attendance. In a patient of so great corpulency I doubted my success, and therefore opened an artery on the instep. Diaphoresis soon followed, and the alarming symptoms rapidly disappeared.

Emetic tartar being mentioned by the annotator as a remedy to be used after venesection, I cannot close this notice without an expression of its influence on croup. Like venesection, when too early employed, it withholds a salutary diaphoresis, and promotes a thin cold moisture on the surface, the result of its depressing influence. Leeches and blisters are often the resource of men who pursue a practice of routine. I have never seen these means decidedly useful. I have known leeches to be prescribed in such ill-judged numbers that the child died of hemorrhage almost before they were disengaged. The delay in the action of a blister is an insuperable objection to it. The value of a counter-irritant is strongly displayed in the following case. A boy aged two years was brought to the hospital in the most unpromising stage of croup. I said I had no hope, but I would try an experiment. I applied a piece of lapis infernalis extensively to the back of the neck, as if I designed to establish a large issue. The boy was quickly relieved, and rapidly recovered. Mercury is a remedy upon which reliance cannot be reposed. To wait for its effects is to waste time. In conclusion I shall observe, that I never saw a case in a child of twelve hours' duration, which did not resist all the usual remedies of routine. It is high time to pass from a fruitless track into a new course. That, however, which I recommend is suited only to the period of invasion.—*Dublin Journal.*

CÆSAREAN OPERATION FOR THE REMOVAL OF A FŒTUS FOURTEEN MONTHS AFTER CONCEPTION.

Mr. Hutchinson read a case of uterine pregnancy, in which the fœtus was removed from the abdomen fourteen months after conception. Mrs. J., aged twenty-eight years, of an active disposition and good constitution, had been married eleven years without having chil-

dren; the catamenia were regular until August 1834, when they ceased, and she believed herself to be pregnant, in which belief she was supported by her medical gentleman, who found every symptom attendant on pregnancy. From the month of September her breasts enlarged considerably, a milky fluid was secreted in abundance, and the areolæ around the nipples were strongly marked. The uterus enlarged more rapidly than is usual in the early months of pregnancy, so that by the middle of September she was of very great size. She now suffered from pains in the back and the region of the stomach, occasioning syncope from their severity. During the next month the movements of the child were felt, and it went on increasing in size. After December the child was regularly felt, and seemed to become gradually stronger. At the end of April she was seized with periodical uterine pains, attended with strong bearing down, and she then considered herself in labor, especially as the ninth month, according to her calculation, had arrived. The pains continued through the night, attended with a slight bloody discharge, and after the passage of two or three stringy substances, they gradually subsided. She suffered great inconvenience for a day or two after, from the restlessness of the child, after which the movements were no longer sensible; still, however, the abdomen continued to enlarge, and her legs became œdematous. From the latter part of May she gradually wasted, and the breasts and lower extremities fell to less than half their former dimensions, except the abdomen, which remained, as to size, stationary, but her general health suffered materially. Such was the history of the symptoms up to the 14th of last June, when the patient first consulted him (Mr. Hutchinson). The symptoms then existing were emaciation, but the countenance was not unhealthy; pulse 100, tongue clean; boewls sluggish, and she suffered from pain in the lower part of the back when in the erect position, and a dreadful sense of suffocation when in the recumbent On examination per vaginam, that canal was found to be shorter than natural, and its sides were compressed by the protrusion of a large tumor, occupying a portion of the pelvis, situated between it and the rectum, and the os uteri was indistinctly felt, the fundus appearing turned downwards and backwards, its mouth being forced up behind the pubes. On the 8th of July she was much altered for the worse, and yet more reduced; pulse 115, respiration laborious, tongue dry and furred, and the bowels constipated; constant vomiting; pain in the back; continual desire to micturate; she suffered also from frequent labor pains, and bearing down, with cramps in the legs, and her nights were restless. Dr. Ramsbottom now also saw her, and after examining the tumor externally, and by the vagina, he (Dr. R.) was of opinion that the case was one of ovarian disease, and that paracentesis abdominis ought to be had recourse to. On the 12th of July the Doctor and his father met, when from the distinct sense of fluctuation communicated to the hand, he believed that there was ascites, complicated with ovarian enlargement, and the senior physician concurred in the propriety of evacuating the fluid without loss of time. Accordingly on the 15th of July, he (Mr. Hutchinson) introduced a large sized trocar through the linea alba, about two inches above the umbilicus, where the tumor was more prominent, when about six pints of a dark chocolate-colored fluid escaped, possessing a disagreeable, though not a fetid odor. This operation afforded considerable and almost instantaneous relief. Dr. F. Ramsbottom expressed surprise at the character of the fluid, having been previously impressed with the conviction that the fluid was contained in the peritoneal cavity. At the expiration of a fortnight a lock of fœtal hair escaped through the opening in the tumor, which had not healed, and other pieces afterwards repeatedly passed through, as well as globules of oil and portions of putrid skin and membranes. A hard circumscribed tumor could now be felt through the abdominal parietes, in the left hypochondrium, evidently betokening the presence of the head of a child, and the nature of the case was then apparent to all. In September her symptoms became aggravated, and she suffered much from constitutional irritation.

On the 21st of September Mr. Hutchinson proposed to remove the fœtal head, to which Dr. Ramsbottom objected, in consequence of the advancement of putrefaction, which would prevent an entire removal of the remaining fœtal substance. After the original wound had been enlarged, the consultants not agreeing as to the propriety of extending the opening, it was deemed advisable to call in a "pure" surgeon, who concurring with Mr. Hutchinson in his view of the case, Dr. R. acquiesced in a proposal that the child should be removed without delay. Mr. Hutchinson, therefore, performed the operation, by enlarging the wound both above and downwards, to the extent of five inches, Mr. Mayo assisting, who introduced his hand, and grasped the right upper extremity, which he brought out of the wound, but the cross position of the fœtus prevented its being extracted without separation with the knife at the shoulder-joint. Then followed a foot, and afterwards the trunk, but the head was too bulky to be brought away entire. The funis was divided. A portion of it with some membrane was left hanging out of the wound. On examination the placenta was found to be still adherent, and it was not removed. The wound was simply dressed and poulticed, and an opening was left in the lower portion of it, to allow the free exit of any fluid which might still remain in the cyst. The fœtus was as large as an ordinary fœtus at the full time of utero-gestation, and the cuticle was entire, except over the scalp. On the 24th of the month the patient had passed a good night, expressed herself as being much relieved, and appeared to be cheerful; the pulse 115, but evidently excited by the presence of the medical gentlemen; she was free from rigors or sickness, and experienced no pain in any part of the abdomen; the bladder and bowels spontaneously acted, and no medicines were prescribed. On the 25th the placenta was removed through the aperture and had the appearance of having been macerated for a long time in water. On the 2nd of October, a slight gastric uneasiness supervened, but decreased until the 8th, when she was attacked with constant pain on the right side of the abdomen, with sympathetic fever, but fomentations and salines afforded relief from these, and since then the general symptoms have remained the same, although the countenance has decidedly improved; the discharge is occasionally feculent, but granulations have sprung up, and the wound now does not extend to more than about half an inch in length. The softness of the abdominal parietes has entirely disappeared, and the poor sufferer appears to be in a fair way of restoration to health.

The unanimous thanks of the Society were returned to Mr. Hutchinson for the detail of the case; remarks were offered upon it by several gentlemen, but these we withhold from publication in the present report, as every reason existed for expecting that others would be given at the next meeting, for at the hour of adjournment seven or eight members were on their legs evincing anxiety to speak on the case; and it will be better to review the whole at once. One of the learned members observed, that the various opinions formed by the medical gentlemen who attended the case, though errors in one sense of the word, were not so physically speaking; but still, although the patient was now doing well he had his doubts of her perfect recovery, owing to the ulcerative process which had commenced in the alimentary canal, indicated by the presence of fecal matter in the discharge which issued from the wound in the abdomen.

ON THE CLIMATE OF MADEIRA, AND ITS TRUE VALUE TO THE CONSUMPTIVE.

To the Editor of the Medical Gazette.

SIR,—Owing to the progress of the cholera in Italy, and the consequent quarantines, many individuals are thinking of spending the winter in Madeira. Having been in the

island last winter, on account of my own health, I trouble you with a few remarks which may, perhaps, be useful to some at this moment.

The situation of the island in the midst of a very large ocean, the latitude, the position of the town of Funchal, &c. all tend to produce great uniformity of temperature and great moisture, by the common principles of meteorology. The moisture is of course little seen in the town itself, being kept in such perfect solution by a uniform temperature, but it is generally visible, in the shape of a fog, on the side of the mountain above, whilst its existence is certain below, not merely from theoretical reasoning, but from the observations which have been frequently made there; particularly from the full and scientific tables of Dr. Mason. I avoid, however, all theoretical reasoning, both regarding the climate and also disease, at present; wishing merely to give a few practical hints as shortly as possible. I therefore only add that the feelings of all persons when they first go, both sick and healthy, those benefited and those not, fully bear out the meteorological conclusions. Hence the climate is extremely useful to those patients who suffer from a dry irritable state of the mucous membranes, whether local or general; and in order to avoid a detail of symptoms, I may express them all under the strictum of the ancients; they are well detailed in Dr. Clark's work on Climate; and he recommends Devonshire, Guernsey, Jersey, &c. for them, and it is for these symptoms that I recommend Madeira; a winter here being, in many respects, a summer in those places. On the other hand, I am very anxious to express my strong conviction that, in the opposite class of symptoms, the laxum of the ancients, particularly if there are present symptoms of increased mucous and still more of purulent secretion, hemoptysis, a tendency to relaxed, or what is called a slippery state of the bowels, if moist and emollient treatment have disagreed before, that in all these cases the climate will do harm in proportion to the good in the contrary; it will, indeed, often, in cases of general constitutional relaxation, do good at first, by removing some local irritation brought on by disease—as a dry cough produced by tubercles—but it will subsequently increase these by increasing the constitutional disorder which was connected with their formation. Such patients, therefore, must change their climate just as they would change their medicine, with change of symptoms.

All that Dr. Clark has said about the impropriety of sending patients in the advanced stage of disease is quite true; and I am only anxious to follow out his remarks by saying that not only must the symptoms be slight, but they must also be of the peculiar character I have mentioned. The vague idea that Madeira has the finest climate in the world, and therefore is applicable to all cases of lung disease, is just as absurd as a similar notion about any valuable medicine; and the idea has hastened the death of many who might have long lived by means of a dry air, slight tonics, &c. It is important also to recollect that this dryer air is not to be found in the island: the higher grounds are very generally covered with fogs in winter, and the few houses there are in summer occupied by the owners; besides that, the air does not become drier as we ascend, but only cooler; at least it remains equally near the point of saturation, which is a very important distinction. Hence the invalid must look to the town, and to it only, as his residence; and consequently eight out of ten must leave the island in summer, or their symptoms will be aggravated as consumptive symptoms so often are in very hot weather, and as has happened to a friend of mine who remained in the island this summer. The town of Funchal (and it is the only one) was full last winter, and should the cholera send more persons there now, it is probable that great inconvenience will be felt by many. The voyage there, and still more the difficulty of getting home, is a much more serious thing to an invalid than those who have not shared in their sufferings imagine: many certain, and more contingent evils, both moral and physical, beset the patient from the moment he leaves home.

till he reaches it again; and these ought, as far as possible, to be explained to him. If tubercles, in however slight a degree, are known to exist, let him be told what is the utmost climate can do for him, or his distress will be very great, when, far from home, all the Utopian delusion connected with the word Maderia is torn from him. Here however I must strongly recommend the perusal of the first and second chapter of Dr. Clark's work, in which he insists on the care necessary in diet, clothing, medicine, &c. &c. for those who go abroad: the negligent way in which many patients are sent off, with no other advice but to give up all medicine, and trust to that ill-understood thing "climate," is, I know, the cause of irretrievable mischief. The patient very naturally persuades himself that climate will compensate for every imprudence, instead of being, at best, but the most favorable opportunity for care and good treatment. A winter in Madeira is, to all practical purposes, but a summer in Devonshire or Jersey; whilst there are many peculiarities in it which make care in all the common habits of life still more necessary. Recommending, as I do very strongly, Dr. Clark's work, to all who travel for health, he will, I hope, allow me to say that I think he has over-colored Madeira, and I must suggest two hints to his readers: that Maderia is with few exceptions fit for a winter residence only, and that it does not combine the advantages of two kinds of climate, but must strictly be classed with the warm and moist; as Pau, Devonshire, &c.

I have intentionally dwelt more on the evils than good of Maderia, in this short letter; my object being to prevent those who were going to the dry bracing air of Nice, &c. from ignorantly turning round with the idea of finding it at Maderia; this being, in fact, just the contrary. My difficulty in writing has been not to dilate, and I would gladly at this moment state the advantages of the island: this I may probably hereafter do, in conjunction with one or two friends; whilst I must for the present be content to say that the good, in well-selected cases, is proportionate to the evil in the contrary; and to show that I am impartial, I may add that it is not improbable I may, before the winter is over, go back to the island myself.

I remain, sir, your obedient servant,

J. M. CALVERT, M.D.

Frankfort, Oct. 6, 1835.

FOWLS CLOVEN ALIVE—AN OLD REMEDY IN EXTREMIS.

The Essex Herald tells us of a deed of "superstition and cruelty" just perpetrated in its neighborhood. "A young man not far from this town (Chelmsford) was last week in the agonies of death, when his father was induced to try the powers of a potent spell, which he was assured would restore the dying man to health and vigor. He accordingly procured a live pigeon, split it suddenly down the middle of the body with a sharp knife, and applied the severed parts, still moving with life, to the soles of the feet of the dying patient, fully expecting to behold its instantaneous effect. The son, however, was a corpse a short time after." About two centuries ago the "superstitious and cruel" remedy here mentioned would have been looked upon as a matter of course. It was one of the many methods tried in the last illness of Prince Henry, the son of James the First. "A cock cloven by the back" was applied to the soles of the Prince's feet, with the consent and advice of the eminent medical men—among them Mayerne, Butler, and Hammond—who had charge of the case. But it does not appear that any benefit was derived from it; the royal patient died on the second day after.

LONDON MEDICAL SOCIETY.

Monday, Oct. 26, 1835. Dr. Whiting in the Chair.

DISCUSSION ON THE CASE OF EXTRA-UTERINE FŒTATION—THE FŒTUS EXTRACTED FOURTEEN MONTHS AFTER CONCEPTION.

The preliminary business of the evening having been disposed of, Mr. Kingdon made a very long speech, in not very good taste, with a view to "draw out" Dr. Ramsbottom, on the subject of the case reported in our last Number (page 181), "fearing, that did he not attempt to elicit something from Dr. R., others might not. Mr. K. considered the effort on his part a great one, "as the science of obstetricy had not engaged his attention for the last fifteen years," and now, in order to accomplish his present purpose, "he was even willing to hold forth the tenets of the old school, rather than Dr. Ramsbottom should be silent, and conceive that the Society did not possess sufficient strength to bring him forth." He considered that his remarks—(his parasitic remarks as we may truly call them)—demanded an apology to Dr. Ramsbottom. The substance of his observations may be resolved into two questions, which Mr. K. put to Dr. Ramsbottom, viz.—First, whether, by an examination per vaginam, it can be ascertained that the uterus contains a fœtus or not? Secondly, whether an incision ought not to be made into the abdomen to remove the fœtus in cases of extra-uterine fœtation, as early as possible after labor pains are manifested?

Dr. Ramsbottom said, as the president had invited visiters to take a part in the discussions, he would reply to the call, of which he felt proud. He perfectly agreed with Mr. Kingdon, that it was highly proper that the nature of every case should be clearly made out; but he did not deem it necessary to point out to the Society what measures should be used in such a case as had been put to him. But the doctrine, that it was desirable during, or immediately after, the pains, to extract the fœtus through the abdomen he could not sanction, as that practice would assuredly cause the patients to bleed to death; for if the placenta were removed, there would be nothing, in cases of extra-uterine pregnancy, to close the mouths of the vessels, as in utero-gestation; and if the placenta could not be removed, it must necessarily putrify, and produce the consequent ill effects of that process. After confessing that his views were speculative, he stated that there had been recorded only five cases of extra-uterine fœtation prior to the successful one that occupied attention at the last meeting. Three of these cases occurred in America, the fourth in the West Indies (the patient was a negress, under the care of a Mr. Brodie), and the fifth in Dublin (under the management of Dr. Bell). The last was a twin gestation. In none of these cases was the fœtus removed so early as in Mr. Hutchinson's case; eighteen months, twenty-four, and twenty-eight months elapsing, from the time of conception. There were three symptoms, he believed, which would always be found attendant on extra-uterine pregnancy. The first was this, that the child dies so soon as the natural term of gestation expires. Fully convinced of the correctness of this proposition, he (Dr. R.) had not hesitated to pronounce a case to be not a case of the kind in question, when the gentleman who consulted him respecting it stated, that his patient had felt the movements of the child during upwards of two years. Secondly, When death of the fœtus takes place, attempts are made by the uterus to get rid of the fœtus, although the fœtus is not contained within the uterus. Thirdly, During these pains or efforts of the uterus, membranes are discharged, and with them some fluid, but not the waters of the amnion. Of ten cases of extra-uterine fœtation which he had examined, the terminations were as follows:—In three cases death ensued from rupture of the fallopian tube,—the most frequent form (tubal) of extra-utèrine pregnancy, and the usual result, bursting of the fallopian

tube; and in one case death followed from rupture of the os uteri, the ovary being formed within the parietes of the uterus. Three cases had ended fatally through the effects arising from the putrefactive process in the system. In other two, the child had been expelled piecemeal, per anum; and in the tenth, the fœtus still remains within the abdomen, in which state the woman may yet become pregnant.* As to the proper time for removing the fœtus, he would not recommend an operation for its removal, until after the death of the child, and nature made an effort to get rid of the mass. Why he was adverse to the operation in the case now before the Society was, that he feared that the patient was not sufficiently strong to bear it, and on this account he had recommended that the opening made by the trocar should be enlarged, so as to allow the free escape of the fetid gas and portions of the fœtus. As to the condition of the placenta, it presented a stringy cord-like mass when removed, but the vascular portion was entire, appearing as if it had been macerated in water, as stated in the history of the case; and now probably it was but right to mention, that since the last report was taken, she had been doing well, and had been up. Feculent matter had passed through the opening only during two or three days, and nothing now appeared but laudable pus. (A preparation of the child in spirits was then passed round.)

The President requested that the members would discuss the important question as to the time at which the operation of extraction ought to be performed.

Mr. Clifton regretted that they were not in possession of a fuller account of the early symptoms of the case, as there were now grounds to suppose, as other members with himself did, that the case might be one of ruptured uterus. He would ask, what were the symptoms that led Mr. Hutchinson to believe it to be a case of extra-uterine pregnancy?

Mr. Hutchinson replied, that after the symptoms of apparent parturition had manifested themselves, the patient remained unwell for about three weeks, when they gradually subsided; and at the early stage of pregnancy there were present symptoms of rather an unusual nature. She had violent spasmodic pains in the abdomen, followed by syncope with frequent feeling of cold over the whole body, and at the time that parturition was supposed to be coming on, the medical gentleman who then attended, on examination per vaginam, could not detect the mouth of the uterus, but believed that it was pressed up behind the pubes.

Dr. Ramsbottom explained, that the situation of the os uteri arose from the fact, that the head of the child had gravitated down into the pelvis thus forcing the mouth of the uterus upwards. As to the supposition that the case was one of ruptured uterus, he could not maintain it for a moment, as the symptoms of ruptured uterus, and the symptoms of extra-uterine pregnancy, were totally different, though surely it was not necessary for him now to dilate on the difference.

The President begged that future particulars might be communicated to the Society, whether the case terminated favorably or unfavorably. He would now call on Mr. Pilcher for his observations on a preparation which he had placed on the table.

Mr. Pilcher preferred a further consideration of the question mooted by Mr. Kingdon, as to the propriety of operating early, or suffering the fœtus to remain until putrefaction had taken place,—points by far too interesting, and of too great practical importance, to be allowed to pass by without further comment. He felt assured that if the physiology

* In this example the sac remains entire, and the child may be retained many years, as cases on record bear testimony; from the parts becoming hard and being retained within the abdomen for the space of twenty, thirty, and even fifty years; and notwithstanding this, the menses may return, and the woman conceive again. (See "Burn's Midwifery.")—Rep.

of the placenta were considered, material assistance would be derived in arriving at a correct conclusion. For himself he would ask first whether the maternal or the fœtal portions of the placenta were perfectly distinct? And, secondly, if the placenta consists only of a fœtal portion, as taught by Dr. Lee, should the degree of hemorrhage be considered to be probably sufficient to offer an obstacle to the removal of the fœtus by incision into the abdomen, as he believed that no vascular communication existed between the mother and the child; and he would maintain that Mr. Kingdon was perfectly justified in his view of operating early. Mr. Pilcher then alluded to a Cæsarean operation that had been performed within the last few days at Birmingham, and informed the Society that both mother and child were living.

Dr. Ramsbottom said that his own opinion coincided with that of Dr. Lee, as to the placenta not being divisible into two portions, but being composed solely of fœtal formation; and further, he (Dr. R.) maintained that the placenta was supported entirely by the action of the fœtal vessels. In extra-uterine fœtation, there is something equivalent to the membranes formed in natural conception, for when an incision is made, not only is the peritoneum cut into, but also this newly-formed membrane, composed of coagulable lymph secreted by the vessels of the peritoneum, and these must be in open communication with the placenta. Dr. Lee had further shown, that if the membranes were blown into, they would be raised. In corroboration of this fact, Dr. Lee maintained that the vessels terminated in open mouths, which he (Dr. R.) considered was not quite correct, as he had found that the apertures were at the sides of the vessels, and not at their extremities.

Mr. Kingdon thought that these opinions respecting the open mouths were in confliction with the well-known fact, that "nature is ever perfect in all her ways."

Dr. Ramsbottom replied, that the gravid uterus was functionally different from every other viscus in the body; and it might be asked, with equal propriety, how is it that arterial blood circulates through veins and gets into the sinuses? But the truth was, that nature had set a limit to our inquiries.

Mr. Bryant asked whether the arteries could be traced, terminating in the veins?

Mr. Ramsbottom had not as yet been able to trace them thus far, but he had found that they were exceedingly tortuous, and that the probe at different places became denuded, though it still continued in the track of the vessels; and by the aid of lenses he had seen that the edges of the opening were perfectly smooth, and not, possibly, the result of laceration. Some of the apertures were round, and others were oval, and he concluded, from the texture of the vessels, that they were veins and not arteries.

The President asked whether the decidual membrana was expelled with the placenta, and if not, whether the vessels were closed?

Mr. Pilcher did not believe that the openings were the result of laceration made by bungling anatomists, as had been supposed, and as an anatomist he considered himself capable of judging in this matter. In his dissections, Dr. Lee had been assisted by Mr. Owen, who surely was not to be considered a bungling anatomist. He (Mr. P.) had seen the openings described by Dr. Lee, which were six in number, in a dissection made from an impregnated uterus, which was found in the body of a woman who was drowned in the Paddington Canal, but he certainly believed that the openings were valvular.

Dr. Ramsbottom affirmed that it depended on accident how much of the decidua was thrown off; nor did he look upon this membrane as having anything to do with cases of extra-uterine fœtation. In conclusion he would remark, that out of forty cases of Cæsarean operation, two only had succeeded in this kingdom (besides the late one at Birmingham). One of these occurred to the late Mr. Barlow, and the other to an ignorant midwife who

cut without ceremony into the uterus, and took out the child. On the continent much greater success had attended this operation, but this was not attributable to the greater skill of the operator. On this side of the channel, surgeons were (though not from timidity or unskilfulness) adverse to the operation, and never resorted to it, except as the dernier resort, to effect that which exhausted nature positively could not accomplish. On the other side of the Channel, precipitancy, rather than delay, ruled the operators, the section having been made on patients who had sufficiently capacious pelves to give birth afterwards to other children, without the assistance of the knife. Hence, as their strength had not, in the Continental cases, become fairly exhausted, the patients were far better able to withstand the shock of the operation.

The Meeting was then adjourned.

Monday, November 2, 1835—Dr. Whiting in the Chair.

CURIOUS CYST IN THE THYROID GLAND.

A general meeting was held this evening, when an alteration of three clauses in the Society's laws received the unanimous concurrence of the members present; the business however only concerned the members themselves, and need not be reported. After the minutes of the last meeting had been confirmed, the President called on Mr. Pilcher to relate the case from which a preparation on the table had been taken.

Mr. Kingdon felt anxious to renew the subject of extra-uterine fœtation, but no other gentleman seemed inclined to discuss it this evening.

Mr. Pilcher stated that the preparation exhibited a disease of the thyroid gland, but what kind to term it he hardly knew. He was requested by his colleagues to see the patient, a woman about sixty years of age, who he found evidently in a dying state; the functions of respiration and deglutition being performed with the greatest difficulty. As she had not the power of speaking, her friends informed him that it had grown to its present magnitude (the size of two clenched hands) in the short space of six months. It fluctuated, and the pus which he had judged it to contain was apparently deep-seated. The skin was dark. She was much emaciated, and all her food was rejected from the stomach. The tumor had rapidly increased within the last two months. He recommended his colleague to puncture it, when, to his surprise, instead of pus, dark thick grumous colored blood escaped. Wishing to learn more accurately the nature of the complaint, it was judged advisable not to proceed any further at present, fearing it might be complicated with aneurysm, as considerable pulsation was communicated to it by the left carotid artery, not, however, that he considered it to be aneurysmal. Meeting with Mr. S. Cooper, who, like himself, was visiting a patient in that unfortunate place, the King's Bench, he requested Mr. C. to give his opinion on the case, and the two coincided that it was not aneurysmal. As the escape of the blood had afforded some temporary relief, it was agreed to pass a seton through it. Three or four days after the operation, the woman died. The tumor after death was found to have flattened the trachea and pressed on the œsophagus, but an opening formed in the latter was not the result of ulceration, as could be perceived. He was inclined to believe that the blood passed from the veins into the sinus; and he would now ask, should he have been justified in laying the tumor open, throughout its length, from top to bottom? The patient might through this proceeding have bled to death, but if not relieved, the tumor must have occasioned her death by pressure on the trachea.

Mr. Jones differed from Mr. Pilcher as to the pathological axiom he had laid down in accounting for the presence of blood in the cyst, and maintained that it was probable that

the extirpation of the gland, at an early period of the disease, would have saved the life of the patient.

Mr. Evans regretted that he was not aware that the case (Mrs. Griffin's) was coming before the Society this evening, or he would have prepared some further information on it, as the woman was a very old patient of his. He confirmed the statement made by her friends, as to the rapid growth of the tumor, which, at its commencement, he had recommended should be dissected out, but the patient refused her assent to the operation, preferring the employment of an external application. Before its appearance she had suffered from asthma.

Mr. Kingdon asked whether Mr. Pilcher had examined the inner lining of the sac, and had detected any vessels? And whether it was from the color of the blood that it was designated venous?

Mr. Pilcher replied that it was from the appearance of the blood that he had judged it to be venous; it was, in fact, almost black; and it was evident that it had been contained in the cyst during some weeks, and equally evident was it that it was not caused by the puncture of any vessel in penetrating the tumor with the lancet, or on passing the seton. Ulceration of the coats of the veins might have occurred, and through the opening blood might have flowed into it, but not in sufficient quantity to rupture the walls of the tumor forming a sanguineous tumor. As to the removal of the tumor, when he was requested to see it, removal was impossible. He had heard of the thyroid gland being removed, when affected with bronchocele, but death had invariably been the result. Very lately he conversed with a gentleman who had witnessed an operation by M. Roux, of a removal of bronchocele, in which twenty-three vessels were tied, and although but little blood was lost, and the patient was, in other respects, a healthy individual, death ensued on the third or fourth day after the operation.

Mr. Moore maintained that the dark color of the blood was no criterion of its being either arterial or venous, after it had become "dead blood."

Mr. Kingdon considered that Mr. Pilcher would have been justified in emptying the sac completely, especially as relief was afforded by the quantity that did escape; though he (Mr. K.) was no advocate for unnecessarily meddling with the thyroid gland; for he saw a patient die twenty-four hours after tying the thyroidal artery.

A gentleman briefly alluded to the symptoms of the late Mr. Barnett, of Tottenham-court-road, who suddenly experienced a peculiar sensation within the head, and from the commencement felt assured that it would occasion his death, being convinced that he had ruptured a vessel of the brain; vomiting every morning ensued, and after a short time he was confined to his bed, and died; the post-mortem examination confirming the surmises he had made. Mr. Wilson and Mr. Bailie were present at the examination. (The case is interesting, but we could not hear the reasons assigned by the narrator for mentioning it on this occasion.)

Mr. Jones considered the color of the blood in the sac no criterion; he did not doubt that it was arterial, and he thought that if the thyroid artery was carefully examined, a rupture of its coats would be found.

The President asked whether the artery had been explored.

Mr. Pilcher said it was probable that the artery might have an opening into the cyst, but he thought that, did it exist, the curator of the Webb-street School Museum (Mr. Appleton) would have detected it.

Mr. Blencairn regarded the disease to be simply an inflamed gland, ultimately terminating in infiltration; in which supposition he was supported by the symptoms of low fever and excessive languor, while, if the gland were irritated, the difficulty of breathing would follow.

Mr. Evans answered that the disease at its commencement was certainly not inflammatory in any respect.

Mr. Bryant believed that Mr. Kingdon would have found it more difficult to empty the sac than he seemed to imagine, and its removal he believed to be impracticable; but still, as the woman was dying from impeded respiration, her life might have been prolonged by dividing the facia of the neck.

Dr. Whiting related the case of a female whch he believed would serve to elucidate the nature of the tumor under consideration. During the process of parturient efforts, a tumor had suddenly formed at the anterior part of the neck, just above the sternum. Twelve years afterwards she died jaundiced, from stoppage of the ductus communis choledochus. On examination the tumor was found to consist of a perfect cyst, easily admitting of being turned out. As the Hunterian Society met the same evening that it was removed, he showed it to the members, and Mr. Callaway was requested to open the cyst, when a perfect clot of blood was found, which had not undergone the least change, and was perfectly sweet. This tumor was evidently produced by rupture of a vessel from the exertion of the parturient force, and maintained by organization of coagulable lymph, as the tumor was isolated.

Dr. Chowne inquired of Mr. Pilcher whether the structure of the trachea was changed, so as to enable him to affirm that the patient died from the effects of pressure.

Mr. Pilcher replied that on its external surface the trachea was perfectly healthy, but from the pressure of the tumor it was constricted, and forced out of its natural position. The imperfection of his knowledge of the changes that had taken place in the parts immediately in the neighborhood of the disease and the appearances assumed by the tumor he felt fully conscious of before placing it on the table, as he had not had an opportunity of examining it since it was hastily removed from the body. (These confessions were obtained from Mr. Pilcher through an observation from Mr. Kingdon at the termination of the discussion, that although the thanks of the Society were due to Mr. Pilcher for the relation of the case, yet the Society had a right to expect, and fully expected, that so good an anatomist should have been better prepared with anatomical facts relative to the case, to make known to the members who might put questions on the subject.)

Mr. Bryant placed on the table some disensed preparations, which were left for future discussion, and the Societv then adjourned.

NORTH LONDON HOSPITAL.

Aneurysm of the Superior Mesenteric.—Singular Modification of Scarlatina.

William Wright, aged 44, was admitted March 21, under the care of Dr. Elliotson. He is by trade a carpenter, and has in general enjoyed very good health; only remembering to have been ill once, about nine years since, and then with rheumatism. About four weeks ago he was seized with violent retchings, flatulence, and pain in the lumbar region immediately below the last rib, occurring with greater severity after meals, and his nights were sleepless. He had less nausea the following week, but vomited his food occasionally directly after taking it. About a week after this he discovered a round, hard, pulsating substance in the umbilical region; the pulsation was increased after meals. Severe pains in the epigastric and umbilical region followed, his breathing became affected, the pulsations were more violent, and his extremities were rather cold. He found the recumbent position less painful than the erect; he was easiest while lying on his

back, and could not lie on his right side. These symptoms continued up to the day of his admission.

Sometime in December last, while carrying a hamper of wine, his foot slipped, and he was precipitated forwards, and in trying to recover himself he dislocated his knee. He did not, he believes, suffer any inconvenience from the accident, nor does he attribute his present illness to it.

On exposing the abdomen a very distinct pulsation is now perceived at the umbilicus. The taxis discovers a circumscribed pulsating tumor extending two inches above and two inches below the umbilicus, and about the same on each side; it is felt to distend at each pulsation. On pressing the tumor immediately below the umbilicus, a thrilling or purring sensation is detected. The bowels have been costive, and there has been tenderness of the epigastrium since the pulsation commenced. At present the pulse is 80 and regular; the heart's action is perfectly healthy, and, except when in much pain, the breathing is quite natural. The tongue moist and tolerably clean; the head aches but does not throb. He sleeps little; the extremities are colder than natural; he complains of pain, which is increased on pressure in the right lumbar, epigastric, and umbilical regions; bowels confined.

March 23. An ounce of castor oil was given directly, which relieved the bowels twice, and the next day he was bled to twelve ounces, and a mixture of salts and senna was given twice a day.

It is hardly necessary to go through the details of this case. The plan pursued by Dr. Elliotson was such as would tend to prolong life to the utmost verge that nature would allow. Repeated small bleedings with doses of the hydriodate of potash, gradually increased, and doses of the muriate of morphia, to procure sleep at bedtime. He sometimes felt a little less tenderness on pressure, and sometimes the tumor did not beat quite so strongly, and he has occasionally complained of numbness and twitching of the muscles of the legs. There has been an evident decrease in the pulsating power of the tumor, but its size has, of course, not been getting less. On August the 9th he began to conduct himself in rather a strange manner, and so continued to the 13th, when he complained of pain in the back of his head, which felt very hot; he squinted a little and was delirious, but answered questions directly when roused. His throat was sore, the mucous membrane being inflamed. The surface, except the face, was covered with an eruption of papulæ of a livid color, and extending in small patches. He moaned continually, and his limbs were tremulous. Pulse 132; tongue white, the papillæ elevated towards the tip, bowels regular. Five grains of calomel with half a grain of the muriate of morphia were ordered directly, half an ounce of castor oil two hours after, and blisters to the back of the neck and shoulders.

14. Has passed a very bad night, having had scarcely any sleep; his bowels have been open several times; pulse 120, rather full; tongue brown and dry; pain in the head; pupils very much contracted. The head was shaved, and a blister, which completely covered it, was applied to the surface. Three grains of the hyd. c. creta were ordered every four hours and three grains of the muriate of morphia were given directly. Beef-tea occasionally.

15. Slept better last night; he does not answer questions, but appears to understand what is said to him; he has constant twitches of the fingers; he moans continually, and also mutters to himself; bowels not much open; tongue covered with a dark fur; pulse 132, weak.

16. He continued much in the same state until late last night, when he became very much convulsed, and picked the bed-clothes. He died at nine A.M. to-day.

Autopsy Thirty Hours after Death.

Head. The dura mater was rather more vascular than usual. The brain itself was healthy, but the ventricles contained a large quantity of serous fluid; there was also a considerable degree of effusion on the surface of the brain.—Chest. The viscera of the thorax were healthy; the lungs contained rather more fluid than in health.—Abdomen. The liver was darker than usual, and gorged with blood; the gall-bladder contained a large quantity of bile, and the bile-ducts in the liver itself were much distended with the fluid. The internal surface of the aorta was diseased, a deposite of osseous matter having taken place under the lining membrane. The aneurysm was one of the superior mesenteric artery; it was about the size of a human heart, and was filled with coagula, which had partly become organized.

In lecturing on this case, Dr. Elliotson observed that the disease of which the patient died was a very curious one. He suspected at the commencement of the attack that the man might be suffering from irritation carried along the course of the arteries from the aneurysm. He was soon, however, able to account for the disease in another manner. There had lately been, in the next bed to the deceased, a man suffering under well-marked scarlatina, and it soon became evident that Wright's complaint was a modification of that disease. This opinion was strengthened from the circumstance of another patient in the same ward becoming affected in a similar manner. It was the case of Edward Britton, who was admitted for rheumatism and pericarditis. A day or two after Wright was attacked, Britton was seized with severe pains in the joints, tenderness at the epigastrium, great thirst, and profuse sweating; his pulse was 100, and the urine was high-colored; the mucous membrane of the throat and fauces was inflamed worse than in Wright's case, and the surface, except the face, was covered with a papular eruption, for the most part of a dark color, but in some places of a bright scarlet; there was more eruption apparent in this case than in the other, but it was by no means a good eruption. There was pain in the head, but his mind was not quite so confused as that of the other patient. His eyes were blood-shot, and suffused with tears; there was also great heat of the surface. Dr. E. was fearful of depletion in this case, and he considered stimulation would be equally injurious; he therefore ordered the body to be sponged with tepid water, and gave a mixture of the liquor ammonia acetatis. He was getting rather better, when, on the 20th, his mother removed him from the hospital. Dr. Elliotson felt at a loss to account for the peculiar modification of the disease, the patient who suffered from scarlatina having had no unusual symptom, and recovering speedily. It proved how very imperfectly the subject of contagion was understood. It was known that in syphilis one person had nodes, one ulceration of the throat, and one a cutaneous eruption; that in one constitution a single course of mercury wholly cured the disease, while in others, course after course was employed, the effect of each course only being to arrest the disease for a time. The cause of these differences was not known. Facts like those which had occurred in the above cases should be remembered, that they might serve as sign posts when modifications of other diseases are met with.

INDIGO EMPLOYED AS A REMEDY AGAINST EPILEPSY.

The utility of indigo as a medical agent was first pointed out by Dr. Grossheim, a Prussian physician. The results which he obtained were favorable, and Dr. Ideler was accordingly appointed to make a set of experiments on patients affected with epilepsy.

Twenty-six patients were treated, and of these six recovered perfectly; three were apparently cured, but from eight to twelve months afterwards suffered a relapse under the influence of causes which of themselves alone were sufficient to generate epilepsy. Eleven patients were essentially improved, and of the whole number treated, only six experienced no change. The effects of indigo on the animal economy are in no ways disagreeable or dangerous; at first the patients vomited frequently, without any straining or derangement of the digestive organs; after a few days this ceased, and the patient had six or eight stools a day, sometimes accompanied with slight colicky pains; after a short time the purging diminished, the matter passed assumed a fluid character, and this state continued as long as the indigo was administered, without the appetite or digestive organs being injured. The useful reaction of the remedy on the nervous system was proved by the fact, that the epileptic attacks were more severe at the commencement, and seemed to assume a higher degree of intensity, but they soon became less frequent and violent, and at length disappeared. The remedy was commonly given in the form of confection with some aromatic powder, or on other occasions simply by itself. The doses to begin with is one scruple, which may be increased to a drachm after a short time, and gradually carried to half an ounce or an ounce.

SPECIFIC REMEDY FOR PROLAPSUS ANI.

Dr. Schwartz has published in Hufeland's Journal, No. 2, a "specific" remedy for this accident. It consists of nux vomica employed in small doses. The author assures us that he has made use of it during ten years in several cases of prolapsus ani, and never been disappointed. This complaint is frequently observed in very young children; here the author commonly employs a solution of one or two grains of the extract in two drachms of distilled water, and gives six or ten drops every four hours. The disease of the bowel is generally cured in the following day. When the child is older he gives fifteen drops, and continues the medicine eight days after the cure, to prevent any relapse. Children at the breast require very small doses, two or three drops of the solution: when the prolapsus has continued for some time, he adds a few grains of extract of ratanhia as an astringent."

ST. THOMAS'S HOSPITAL.

Clinical Lectures on the Diagnosis, Prognosis, and Treatment of Delirium Tremens.

Delivered by Dr. Roots, on Monday, November 2, 1835.

You may remember, gentlemen, that when I last had the pleasure of meeting you, I concluded with an avowal of my ignorance of the precise condition of the brain and nervous system in that particular disease which is called "delirium tremens."

With respect, then, to the termination of the disease. Sometimes, if the attack has been very slight, the disease will run on for three or four days, or more, the patient will fall into a profound sleep, and awake comparatively well. This, however, is not a very frequent termination, when unaided by medical means. More commonly, and more especially if it be a second or a third attack, the symptoms will increase in intensity, and perhaps terminate in convulsions, of an epileptic character, occasionally or perhaps frequently recurring until the patient dies; or it may terminate in apoplexy, after one or two more recurrences of these convulsive attacks. It may terminate in apoplexy, and occasionally it will terminate in mania. The latter, however,

certainly is not a common termination, but still it is an occasional termination of delirium tremens.

Prognosis.—Then as regards your prognosis; if it be a first attack,—if the constitution has not been materially enfeebled, your prognosis may generally be favorable. Of course it becomes more doubtful in proportion to the previous shattered condition of the patient and also more doubtful if it have been attended by convulsions. The danger, too, as a matter of course, will be increased if, in addition to the irritation, you find accompanying it inflammation.

Diagnosis.—Then as regards your diagnosis. This is certainly a subject of the greatest importance, because upon the correctness of your diagnosis will depend the probability of your patient's recovery. If you should by chance mistake true delirium tremens—and I am speaking now of the true form of the disease,—and treat it upon the principles of inflammation of the brain, the chance is that you will destroy your patient's life. Well, then, the history of the case, the history of the patient's previous habits, whether he had been addicted to the abuse of spiritous liquors, or of opium; or if to neither of these, whether, having been exposed to great bodily privations and mental anxiety, the disease had supervened upon them. Next you must bear in mind, in true delirium tremens, the absence of the flushed countenance, the absence of the suffused eye, the absence of excessive heat of head, the tremor (the general tremor of the body, to a greater or less extent), the tremulous condition of the tongue, and also its moist creamy coat,—these things being considered in connexion with the state of the pulse, which is perhaps at first rather slow and soft, speedily getting quick, but still soft; and, in addition to all these, the peculiar illusion of the mind—the illusion in true delirium tremens being perfectly different from that which is observed in inflammation of the brain. The patient here, it is true, is suffering under an abberration of mind, but it is that which is easily controlled. He gets out of bed, but is easily got back again; he is subdued with very little difficulty. This is not the case in delirium arising from inflammation. These are only intended as practical remarks for your observance, and as we have not time to go more deeply into the subject, I shall go at once to the treatment.

Treatment.—Now supposing you were called to a patient who was laboring under the early stage of delirium tremens, where there was no question whatever as to the nature of the disease. Your first object in such a case would be to ascertain that the bowels were sufficiently open; and to ensure that you would give him, probably, a warm stimulating purgative, with most probably a small dose of calomel,—say three, four, or five grains, with two or three drachms of the tincture of senna; and if the bowels were not readily acted upon, you would give him some of the neutral salts with it. But I am quite sure you will find that very active purging will do no good. As a matter of course, as I have before observed, the secretions cannot be otherwise than deranged; in the existing state of the brain and nervous system, you could not expect that the secretions, under the circumstances, would be natural; and, on this account, some who have written on the disease, being aware of this depraved condition of the secretions, have strongly recommended the employment of mercury. Now I am of opinion, and that from practical observation, that it is exceedingly proper to give occasional doses of mercury, perhaps every other day, or it may be, once in three days, for the purpose of producing the effect of what, in older times, was called an "alterative;" I think it is right to give "alterative" doses of mercury, just sufficient, perhaps, to change, in some degree, the secretions. But I do not think you would do any good,—on the contrary I am quite satisfied that you would do harm, by giving mercury, in true delirium tremens, in such quantities as should *produce* the specific effects of that medicine on the constitution. Now my reason *for this is* that mercury, generally speaking, sets up, along with its specific action, irrita-

tion in the system. You have already excessive irritability of the brain and nervous system, therefore I would not give mercury in sufficient quantities to produce its specific effects, because I think its administration would be likely to increase the very irritability which I wished to subdue.

What, then, after all, is the indication in delirium tremens? Why, it is to allay the peculiar irritability of the brain and nervous system; to induce sleep, and afterwards to restore the secretions to their healthy character. Allay the irritability of the brain and nervous system, procure good sound sleep, and increase the patient's strength by giving moderate tonics, aided, perhaps, by stimulants, and the secretions will, in all likelihood, return to their healthy condition, without the necessity of employing the specific influence of mercury.

What, then, are the means by which we would endeavor to allay this irritability of the brain and nervous system, and procure sleep? You all know, gentlemen, that in irritation of the system generally, or in irritation of any particular part, no means with which we are acquainted are so powerful in allaying that irritation as opium. Then opium becomes, I may say, our sheet-anchor in the treatment of delirium tremens, and that must be given in doses proportioned to the degree of irritability in each particular case, and also to the power of the individual. In slight cases, small and frequently repeated doses of the tincture of opium, or of solid opium, or of the preparations of morphia, the acetate or muriate, will be sufficient; say from ten to fifteen or twenty minims in slight cases, repeated every three or every four hours, until sleep is procured. But if the irritability is great, you must then have recourse to larger doses; in which I should say that it would be useles to commence with a dose of less than forty or fifty or even sixty minims, and I should prefer the latter if of the tincture of opium; or from three to five grains of pure opium; or from a quarter to half a grain of the muriate or the acetate of morphia, to be repeated every four hours until sleep was procured. If you find, after the patient has taken three or four doses, that the excitement still goes on,—that there is still a want of sleep, and the same degree of irritability and illusion, and perhaps without the pulse being augmented (without there being the slightest proof of inflammatory action in the brain itself, or in the membranes of the brain), and that the delirium seems to be increased instead of diminished, then I should not hesitate to give an increased dose. For example, if I had been giving half a grain of the muriate or the acetate of morphia every four hours, and after the third dose found the irritability not allayed, having waited the proper time after the exhibition of the last dose, I should then give one dose of a grain. Observe that I say, after having waited the proper time. Now my reason for saying this, for advising you always rather to commence with a small dose at first, and to wait the effects of that—to feel your way, as it were, than to commence with the boldest dose at once, is this, that though in a great many instances you will find success attend the exhibition of the larger dose, yet it has occurred to me in two instances, and it has also been related to me by one of the best practical physicians of the present day in this town, as having occurred to him also in one or two instances, that by commencing with a dose, say of a grain of the muriate or the acetate of morphia, such an impression has been made on the brain and nervous system, that the patient has never been aroused from it; knowing, therefore, that such an effect may take place, it becomes our duty to exhibit opium with caution. When sleep has been procured,—and when it is procured it very generally runs on for six, seven, or eight hours,—you find that your patient awakes amazingly relieved; in some instances perfectly relieved.

The caution I have just given, may perhaps be best illustrated by mentioning to you the following case:—It happened that during the present summer I was requested to see

with one of the most eminent and intelligent general practitioners in this town, a lady who had been ill for some time; and it was necessary, as a matter of course, though painful to her friends, to acquaint me with the cause which had brought her into the condition in which we saw her. She had unfortunately contracted a habit of drinking brandy. Now I found her suffering under true delirium tremens. There was the tremor, the quick pulse, and, being in an advanced stage, the tremor of the whole body, the tremor of the tongue, the profuse perspiration, the absence of pain and heat of the head, and there was the creamy moist tongue. The only symptom wanting to make up the disease appeared to me to be the illusion, which I could not detect; still I was satisfied that the disease was delirium tremens, and I was very nearly quitting the bed-side with the impression that it was a peculiar case of delirium tremens, unaccompanied by illusion; but just as I was about to go, I said—"and so you have not slept any night for some time past; you did not sleep at all last night I suppose?" She replied, "How could I sleep? We had workmen in the house." This was the fact, for there were workmen about the house; but she went on to say, that one of them had attempted to get into her room at night, and that he was constantly at the door. "He packed up all the plate," she said, "and took it away with him. He has since been apprehended, and my husband is now at Bow Street, attending his examination." Now this was all told so deliberately, and appeared to me to be so natural a chain of events, that I thought it must be true, and turning to a female relative or friend who was standing at the foot of the bed, I said—"Is that really so?" The answer showed that there was not a word of truth in the statement, except what related to the fact of workmen being about the house. The existence of illusion was now manifest enough, and I directed half a grain of muriate of morphia to be given every four hours, and that if, after the third dose had been exhibited, the irritability of the system was not allayed, a dose of a grain should, after waiting the proper time, be given. Two doses were given, but still the irritability remained, and in about an hour afterwards a dose of a grain was given, the united effects of which three doses were such, that the medical man was obliged to be fetched, when he was under the necessity of pouring down brandy and ammonia, and using constant friction to keep the patient in a state of agitation for a considerable time, in order to counteract the poisonous effect of the narcotic poison; or, as I may call it, of the narcotic, from taking effect. After this the patient did perfectly well. Still, if the medical man had not come in immediately, the chance is that she never would have recovered from the effects of the dose.

In addition to opium, cold applied to the head is another most useful remedy, either in the form of evaporating lotion, or applied in the shape of ice.

I have already stated to you my objections to mercury. I do not think that in this stage of the disease, or in this particular species of the disease, blisters are of much service, unless you imagine there is some slight degree of congestion, or of inflammatory action going on, which you are afraid to attack by depletory measures; then perhaps a blister may be used, but otherwise I should not have recourse to it.

Well, now, during this period, in conjunction with the opium, the powers may be so enfeebled and exhausted, that the exhibition of some stimulants may be proper. Now, of those, the Materia Medica presents a great variety; and you will find suggestions to give camphor, ether, ammonia, assafœtida, valerian, and a host of others; but I don't mind making the avowal to medical men, that in a case of this kind, as regards stimulants, and especially those which come under the denomination of "antispasmodics," I have but a very sorry opinion of them. I know what a moderate quantity of wine is capable of producing; I also know what may be gained by light nutritious diet, but I confess to you

that I am not quite satisfied as to the quantum of stimulating effect that may be produced by five, six, or eight grains of carbonate of ammonia repeated every six, or every four, or every three hours. Or, if the quantum of stimulus be ascertained, still I am afraid you will give it at the risk of nauseating the patient's stomach, and preventing him or her from taking that which, in the way of nutriment, you ought at the same time to administer. However, there can be no objection, though I dare say there are many who think differently from me, for those who see their way more clearly with these remedies than I do, to giving moderate quantities of carbonate of ammonia, of camphor, of ether, or, if you think that it is a good stimulant, of asafœtida. I confess for myself, that I should be much more inclined, if I wanted a mere stimulant, to give some good porter, or some tolerably good ale, taking that stimulus more especially to which the patient had been previously in the habit of resorting, only giving it cautiously, and watching its effect.

The food ought, as a matter of course, as I said before, to be light and nutritious, say milk, good strong beef-tea, animal broths, and, in some instances, where the patient's stomach will bear it, I should have no objection to allow him a mutton chop, or a slice of meat, always being careful so to graduate the exhibition of stimulants as not to produce over excitement; if you do that, then you will get the second species of delirium tremens; you will then have inflammation of the brain in addition to irritation.

Supposing, then, that the opium has procured sleep, after having been obliged to resort to a larger dose, I would still continue the exhibition of the opium in small quantities—that is, if I had been giving it in the form of the muriate or acetate of morphia in doses of half a grain every four hours, then having afterwards resorted to one grain, in consequence of the previous small dose not having been sufficient to procure sleep, that one grain having had the desired effect,—then, after the patient had awoke, I should continue the small dose for a certain time every four hours, the object being, as soon as the irritability of the patient was sufficiently diminished, to diminish, also, the frequency of the dose of opium. This, however, must depend upon practical observation. It is quite impossible to lay down any positive rule as to when the quantity or the frequency of opium ought to be diminished. That must depend upon the degree of irritability remaining.

Next, as regards restraint. Now, if that can by possibility be avoided, it ought not to be employed. As I before observed to you, the delirium is, generally, of that peculiarly passive character which does not require forcible restraint, and where it can be avoided it ought, because it only produces increased irritation. One or two people, generally, ought to sit at the bed side. It is quite sufficient to persuade the patient, merely leading him back to bed, instead of confining him with a strait-jacket, as the patient was obliged to be confined who was laboring under the second species of delirium tremens, and whose case I brought before you last week.

Supposing the irritability of the brain and nervous system to have been subdued by these means, it may then become necessary to resort to some mild tonic, and perhaps some of the vegetable bitters, some quinine perhaps may be best adapted for restoring general strength to the system. It becomes also a positive duty, an unpleasant one in many instances, more especially in private practice, to represent most strongly to the patient the risk he runs by again indulging in the vicious habits which brought on this disease, for in ninety-nine cases out of a hundred it does arise from the abuse either of spirits or of opium.

Second Species of Delirium Tremens.—(Case of Grey.)—Well, then, with respect to the treatment of the second species,—that species under which Grey was laboring. Now in such a case the treatment must, to a certain extent, be of an opposite character, and, to a certain extent, ultimately, of a combined character. He had been twice bled before he

came in. He was bled, properly bled, by Mr. Stone, when he came in. The next day, though satisfied when I first saw him that he was suffering under delirium tremens, yet I was equally satisfied that he was laboring under delirium tremens accompanied by inflammation of the brain, or its membranes, or both; for I do not hesitate again to confess my inability positively to say when the brain alone is inflamed without there being any inflammation of the membranes of the brain, or when the membranes of the brain are alone inflamed without there being any actual inflammation of a portion of the brain itself. It looks very well on paper to make those distinctions, but you will find it difficult enough to make them when you come to practise. Satisfied, then, that this inflammation existed and that a sufficient or nearly a sufficient quantity of blood had been taken, and that it would not be prudent to risk general depletion further, I did not hesitate at that time (continuing cold to the head) to direct further local depletion by taking eight ounces of blood from the occiput, and at once giving him after that (in conjunction with the mercury,—Mr. Stone having ordered him three grains of calomel every six hours, and which I then directed every four hours) half a grain of the muriate of morphia every four hours. You saw the result of this. After the second dose of the muriate of morphia, his delirium diminished, and he obtained three hours and a half of sleep. When I saw him the next day, there appeared to be still sufficient proof of excitement about the brain or its membranes to warrant a further abstraction of blood, although I continued the muriate of morphia, and eight ounces more, therefore, were taken from the occiput. After this no further depletion, either general or local, was necessary. He went on for two or three days progressively amending; and now I come to an error in my own practice. Finding so much amendment, I was willing to diminish the frequency of the exhibition of the muriate of morphia, and as he answered perfectly rationally, as there was no proof then of any inflammatory action about his head, as the tremor was lessened, and, in point of fact, as he was in every respect better, I said, "Give the muriate of morphia every eight hours instead of every four." Well, now, what was the consequence? Why, that within four-and-twenty hours after that, his delirium increased; he became almost unmanageable. Mr. Stone was called to him, and very properly gave him a grain of the muriate of morphia, which quieted him, and he went to sleep. This medicine was then resumed in doses of half a grain every four hours, and continued for a sufficient length of time wholly to subdue the irritability of the brain and nervous system, after which it was discontinued without any recurrence of the delirium. Now you may profit as much by bad practice as by good. I candidly admit, that I ought there to have continued the muriate of morphia a day or two longer, as frequently as it was given before. You will observe, too, that here was another modification of the treatment, because with the exhibition of the opium, which is not proper, if you have merely inflammation of the brain or inflammation of the membranes, it was necessary, and speedily too, to give him some good beef tea, and in addition to the beef tea it was necessary to give him some stimulant. I confess that I did not here have recourse to musk, camphor, ammonia, or asafœtida, but to a small quantity of porter, which he bore very well, that is, his brain and nervous system bore it well, but it was not agreeable to his taste, therefore in the course of a day or two it was changed to a small quantity of wine; the wine also he did not like, and that was changed, ultimately, to a small quantity of brandy, a tablespoonful twice in the course of the four-and-twenty hours, properly diluted with sago, arrow-root, or gruel.

With respect to the exhibition of mercury, you remember that I stated to you, that in the treatment of the true disease, I myself did not believe it to be necessary, or that it would be advantageous, to give mercury so as to produce its specific effects upon the system, and I gave my reason for so thinking; but still mercury was given here. But then, here were two diseases; there was inflammation of the brain supervening on delirium

which can be employed in conjunction with depletion, general or local, in diminishing inflammatory action in any of the tissues of the body, excepting the mucous membrane of the bowels; that is, in my opinion; but here it was given—and I think it is probable that I should have given it myself—twenty-four hours before I saw the patient. I say I think I should have given it myself. Still you are to remember what it eventually did. It set up excessive irritation in the mucous membrane of the bowels, so that we had a harassing diarrhœa, which we were obliged to combat with astringents and doses of opium, even after the irritability of the brain and nervous system had so far subsided as to render the further exhibition of morphia unnecessary. Nay, more, the mercury went on to produce something beyond irritation; so I presume, from the nature of the discharges from the bowels. Certainly there was a degree of inflammatory action set up, and this was evident from the discharges, from the tenderness along the track of the colon, and from the increased heat there, so that we had to apply leeches, and, subsequently, a blister, after he was convalescent, from the delirium tremens. This is undoubtedly an effect of mercury which cannot always be avoided, though an effect which one does not desire, where the patient has been suffering under such a disease as that upon which I am now making my observations.

It has been suggested by some practitioners that antimony might be of service in delirium tremens, given in large doses. Upon that I have no right to offer any observation, because I have never seen the practice carried into effect; but I may take the liberty of stating what my idea is on the subject. I think that if useful at all, it can only be useful in the second species of delirium tremens, namely, that which is accompanied by inflammatory action; and that as, very frequently, the stomach in delirium tremens is so irritable as to make it an object with us to tranquillize that organ very speedily, I certainly cannot imagine antimony to be useful in the true delirium tremens. I should hesitate very much before I employed it in the second form of the disease.

It has also been stated that digitalis has been given with advantage, I think by an American physician; I am not quite certain whether it has been employed in this country; but it has been said to have been used, and in doses which excite at least my surprise,—in doses of a drachm,—of sixty minims every two, three, or four hours, frequently repeated. I only mention that such facts have been brought before the public. They may be true but I am quite satisfied that I never should have felt warranted in employing such a remedy in most of the cases of delirium tremens which it has been my chance to meet with.

I stated to you that it was exceedingly necessary, to form your diagnosis correctly with respect to delirium tremens, so as to discriminate the true delirium tremens; and it has just occurred to me that I did not allude to one circumstance which should have been mentioned. If perchance you mistake true delirium tremens, in a very shattered constitution, for inflammation of the brain, and treat it as inflammation of the brain, I stated that you will most probably lose your patient. Now, I saw an instance of that some fifteen or sixteen years ago. The case was one of a butcher who had drunk exceedingly hard, and there was a consultation of three medical men upon his case. Of course I had not then the same degree of experience that I may be supposed to have now, but still it appeared to me to be decidedly a case of delirium tremens, and as such it was proposed to treat it. A difference of opinion, however, existed as to the remedies, and so satisfied was one individual in consultation as to his view of the matter, that he said we should certainly destroy the patient if blood was not abstracted, either generally or locally. The juniors bowed to the senior authority, and twelve ounces of blood were directed to be taken from the occiput. Immediately upon removing the glasses the man fell into convulsions and died. Now I do not think that that result

would have happened if this depletory measure had not been adopted. It might. It is impossible to say that it might not. He had not previously suffered convulsions; but I do think that the fatal termination would not have happened had the blood not been abstracted.

I am anxious, gentlemen, to recal your attention, to prevent misapprehension, to one part of the case of this man Grey. I mentioned to you that the medical gentleman who had seen him before he came into the hospital had very properly directed his feet to be put into warm water, and I added that they had indeed been put into warm water,—that they had been put into boiling water; and I am anxious just to recal the fact to your minds for the purpose of now saying that this immersion was not the act of the medical gentleman who saw him, but an error of the friends of the patient, or the people about him. The medical gentleman had no kind of intention of putting his feet into boiling water. It was the error of others, not of him.

I was about to call your attention to two cases of gastric affection that have occurred in the hospital—one a well-marked case of chronic gastritis, and treated as such; the other of gastric irritation—one, at least, which I myself believe was not at all of an inflammatory character, though it was thought right in some measure at first to treat it as though it were; but as it only wants five minutes of the hour, it would be absurd now to enter into a consideration of two cases which are of considerable interest, and therefore they will occupy our time at our next meeting.

** In the lecture by Dr. Roots, published on the 31st ult., the suggestion of the term "delirium cum tremore" was, through misapprehension, ascribed to Dr. Copland, in whose "Dictionary of Practical Medicine" the term is, we believe, applied to the disease commonly called "delirium tremens." The name, however, was first employed by Dr. Elliotson in the following passage, which we extract from a lecture delivered by that gentleman in 1831:—"The disease to which I allude is called delirium tremens, which is rather an improper word, because the delirium cannot tremble. It would be better to say delirium cum tremore," &c.—Ed. L.

ARTIFICIAL ANUS CURED BY A NEW PROCESS.

In the month of September last, M. Amussat, of Paris, was called on to see a child two days old, who had not yet passed any meconium. The anus existed, and was well formed, but the rectum terminated by an opening in the vagina. On examination it was found that the rectum did not exist for two inches from the anus. M. Amussat, therefore, determined on seeking the extremity of the great intestine, separating it from its attachment, and fixing it by suture to the opening in the skin; for this purpose he made a T incision between the vaginal opening and the anus, and having introduced the finger by this opening, he separated the vagina from the coccyx and sacrum, until he arrived at the blind end of the great intestine, which was placed above, to the right side of the sacro-vertebral angle. Arrived at this point, the manœuvres produced a desire to evacuate the meconium. The gut was recognised by Messrs. Deneux and Lebaudy, who were in attendance. It was seized with a hook, separated from the surrounding parts by the finger, and drawn gently down to the opening in the skin, where it was fixed with several points of suture. It is now twenty-eight days (said M. Amussat at a late meeting of the Academy of Medicine) since the operation just described has been performed, and no accident has occurred, the child being in the most satisfactory state.

NORTH LONDON HOSPITAL.

Concussion of the Brain.—Fracture of the Neck of the Scapula.

James Ricketts, aged 44, was admitted, Oct. 2, under the care of Mr. Cooper, in consequence of a fall while painting the roof of a lofty room. The pupils were dilated, his pulse was slow, and he was affected with sickness and vomiting. After a copious bleeding his pulse rose. On being brought to the hospital he was partially insensible, but could be roused by questions put to him in a loud tone of voice. The iris acted on exposure to light. Pulse 120. The head was kept in an elevated position, and a cold spirituous lotion was applied to the scalp; his bowels were opened with calomel and croton oil, followed by a mixture containing the liquor ammonia acetatis, sulphate of magnesia, and antimony wine. On examination, the neck of the scapula was found to be fractured, a kind of injury, Mr. Cooper remarked, which was very easily detected through the medium of the coracoid process. The arm was put up with a wedge-shaped cushion in the axilla, the elbow being at the same time well supported in a sling. This case went on very favorably; the patient recovered the full power of moving his tongue, and left the hospital at his own request. Mr. Cooper remarked that a fracture of the neck of the scapula generally occurs through the notch in its superior costa. The case he considered to be an interesting one, because it was attended with some symptoms resembling those of dislocation of the humerus downwards. The arm sinks, the shoulder drops, the deltoid is flattened, and the elbow lowered. But the humerus can be readily raised again, which is not the case in a dislocation. The elbow is not drawn away from the side, as in a dislocation, and the humerus, after being raised, falls again on being left to itself. The crepitus can be distinctly felt on lifting up the shoulder, and applying the fingers to the coracoid process.

MEDICO-BOTANICAL SOCIETY.

Tuesday, November 10th, 1835.—Earl Stanhope, President, in the Chair.

This being the first night of the session, on the President taking the Chair, an address of congratulation on his return to England after a long absence was read. His lordship, in returning thanks, assured the Society that he felt most anxious for its success, and that he should devote much of his time to promote its welfare, both from his love for botanical science, and from the great respect he felt for the medical profession.

Dr. Sigmond then read an eulogium on the late Mr. Gilbert Burnett, which was ordered to be entered on the minutes of the Society.

Mr. Johnson read an address introductory to the opening of the session, pointing out the advantages which had resulted from the study of botany, by contrasting the present objects pursued in medical education with its state many years since.

A paper by M. Germon was next read, on the application of the juice of the Manchineel tree in cancerous diseases. The remedy is to be brought into contact with the eschar alone; care being taken to prevent its absorption at the edges, from which the worst effects might follow. Its analogy to the action of arsenic induced M. G. to recommend the juice, and anticipate success from its employment.

LONDON MEDICAL SOCIETY.

Observation by Dr. Ramsbotham on Extra-Uterine Fœtation, and on the terminations of the uterine vessels in connection with the placenta.

To the Editor of the Lancet.

Sir;—As you have noticed in the last number of your journal some remarks I made at the London Medical Society on a case of extra-uterine conception, I shall feel obliged by your correcting the following trifling inaccuracies into which your reporter has fallen.

I stated—not that there were only recorded five cases of extra-uterine fœtation—that I was only acquainted with five reported in our language, in which an extra-uterine fœtus had been extracted by operation through the abdominal parietes; and that none of these cases had occurred in Britain. The earliest is given by Mr. Brodie of Mevis, W. I. (Philosoph. Trans. vol. 19, June 1697.) Mr. Bard of New York has furnished one. (Med. Obs. and Enq. vol. 2, March 1760.) So has Dr. Bell of Dublin (Med. Commentaries, vol. 2, part 1, 1774); in which instance the gestation was twin; and both fœtuses were removed at the same time. We have another by Dr. M'Knight of New York, (Mem. Med. Soc. Lond, vol. 4:) and a fifth by Mr. Baynham, Essex County, Virginia. (Med. Facts and Obs. vol. 1, 1791.) I might have added a sixth, which at that time escaped my recollection. (Philosoph. Trans. vol. 41, 1741,) in which a butcher, named O'Neil, in the County Tyrone, Ireland, extracted by incision a fœtus, whose elbow appeared through an ulcerated aperture in the abdominal parietes.

I mentioned also, as your reporter states, that I had personally known ten cases of extra-uterine conception, besides the one under consideration; but as he has made me affirm what could not possibly happen, you will allow me also to correct him here. Four of the patients died from rupture of the sac, as evidenced by dissection; three of these were tubal—the most frequent form of all the varieties—and the other parietal, or as the French call it, "interstitial"—in which the ovum is lodged within that portion of the fallopian tube which traverses the parietes of the uterus. Three women died during the process of ulceration, established for the purpose of getting rid of the putrid mass; and three have recovered—two after the evacuation of the fœtal body, piecemeal, per rectum; and the last, who had the fœtus remaining within her when I last saw her (having conceived about 20 years ago), and who has, to my knowledge, borne three children since she became the subject of this irregular species of gestation.

In noticing my remarks also on Dr. Lee's description of the connection between the uterus and placenta, your reporter asks in a note, "Where does Dr. Lee state that the apertures [described in the uterine vessels in communication with the placenta] are at their extremities?" It is true that Dr. Lee does not use the word "extremities," but in his paper on the connection between the uterus and placenta, published in the Philosophical Transactions, and reprinted in his essay on some of the diseases of women, we read (p. 203), "The semilunar or valvular-like edges of the vessels at their terminations in the inner surface of the uterus, are admirably adapted to ensure the effects of arresting the current of blood," &c.; and in the letter from Mr. Owen, of the College of Surgeons, to him, which the doctor has inserted in that paper (and whose opinions we may therefore fairly conclude that he adopts) we find the followine passages:—"In every instance, the vein, having reached the inner surface of the uterus, terminated in an open mouth on that aspect." "But with respect to the veins, they invariably presented the same appearances, terminating in open semicircular orifices, which are closed by the apposition of the deciduous membrane and placenta." Again: The preparation which

accompanies this letter shows the termination of a vein on the inner surface of the uterus and an artery of the decidua cut through, with the corresponding appearances on the surface of the placenta."

Dr. Nimmo's report, also embodied by Dr. Lee in his paper, is to the same effect. "These (uterine vessels), instead of passing directly into the placenta, are distinctly seen applying their open mouths to the membrane of the placenta;" and Dr. Lee himself states that "Mr. Broughton (after having re-examined the preparations on which Dr. Nimmo had previously made his observations) authorized him (Dr. Lee) to state to the Royal Society that Dr. Nimmo's account was perfectly correct.

I think, from these quotations, we may presume that Dr Lee's opinion at the time they were published was, that the uterine vessels, in connection with the placenta, terminated by open extremities. I am, Sir, your obedient servant,

FRANCIS H. RAMSBOTHAM.

14, New Broad-street, Nov. 11, 1835.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Nov. 7th, 1835. Dr. Addison in the Chair.

Death of Sir D. Barry.

Amongst other subjects which engaged the attention of the Society this evening was the death of Sir David Barry, whose name circumstances had combined of late years to bring frequently before the profession, and who was consequently pretty generally known as a metropolitan physician. The decease of this gentleman was announced by Dr. James Johnson, in the subsequent observations, which were followed by remarks from several members, occurring in the order in which we now proceed to report them:

Dr. Johnson said the death of Dr. Barry had occurred within the last few days in a sudden and seemingly mysterious manner. His professional services were well known to the Society, and of them he need not speak, as were many of the qualities which would render his loss severely felt. The facility with which he communicated his ideas, the fertility of his imagination, the brilliancy of his wit, and the poignancy of his satire, were all equally remembered; though he might add, with regard to the latter, that whomsoever he wounded his good-nature was eager to heal. On Tuesday last, Sir David dined out in perfect health. After dinner he ate three pears and some nuts, and in the evening some cake, which he did not relish; afterwards he felt an uncomfortable weight about the chest. On the following day, on his way to the city, through the Haymarket, he was suddenly seized with excruciating pain in the stomach and loins, and faintness, and felt assured that he was dying. He (Dr. J.) was sent for, but being from home, his son attended, who found Sir David pale, chilly, and with the aspect of a person who had sustained a severe accident. Sir David was conveyed home, and at one p. m. on the same day he was visited by him (Dr. J.), when he was still chilly, though slight reaction had commenced. The pulse was not bad, and was beginning to be more developed. Sir David considered that his sufferings were entirely dependent on the presence of indigestible matter, and that this would be removed by an emetic. He (Dr. J.) demurred to prescribe this, but Sir David urged its administration. He (Dr. J.) reasoned with his patient on the subject, pointing out that as the indigestible substance had been swallowed fifteen or sixteen hours since, without doubt it had passed the pyloric orifice of the stomach, and that an emetic would occasion considerable pain and inconvenience. He therefore wished to prescribe four grains of calomel, and one of opium. To this Sir David acceded, and he was directed to be kept warm in bed, and to have hot cloths applied to the stomach. At his next visit,

two hours afterwards, he found his patient relieved, and more composed; his skin was warm and moist. A warm aperient was prescribed, and as it had not sufficiently operated at eight p.m., an enema was injected, which produced copious evacuations. Between the time of prescribing the aperient and administering the injection, Sir David felt better; his pulse had become better, and no symptom was present, indicating that his end was so near; nor did Dr. Copland, who saw him, consider his life to be in danger at half-past ten p.m.; he remained quiet until one p.m., when suddenly he expired, after getting out of bed. He was in the fifty-sixth year of his age. The post-mortem examination was performed on the following Friday evening by Mr. H. Johnson. On laying open the abdominal coverings, remarkable layers of fat were found between them and the peritoneum; the stomach and intestines were empty, and exhibited no traces of disease. On making an incision into the right side of the chest, an immense quantity of clear serum burst forth, but he (Dr. J.) was not a little astonished at finding the left side of the chest filled with water, and five pints of blood effused into the cavity of the chest; an aneurism of the descending thoracic aorta being discovered, of the size of an orange, which had burst into the posterior mediastinum. The left ventricle of the heart was hypertrophied and found to be upwards of an inch in thickness. On reflecting on the matter, now that Sir David's sufferings and the cause of his death were ascertained, he (Dr. J.) was extremely glad that he had insisted on the impropriety of using an emetic, for had it been taken, death must evidently have occurred during its action; and if an examination had not been permitted, it would have been extremely difficult to account satisfactorily for the fatal result.

Dr. Copland said that he had but little to add to these particulars. When he was sent for, he found Sir David still expressing a great desire for an emetic, but not considering one to be required he (Dr. C.) assisted in prevailing on him to wait until the consultation at eight p.m., when Dr. Johnson and Mr. M'Intyre would also be present. When he (Dr. C.) arrived, a few minutes after Sir David's death, he hesitated at first what step should be taken; but he found that the lips were perfectly blanched, and that it was impossible by pressure on the vessels of the neck to fill them with blood; the same phenomenon was present in the veins of the arms, indicating death from hemorrhage, therefore nothing was attempted at this period to be done in the way of treatment.

Mr. Streeter inquired of Dr. Johnson whether there was any valvular disease existing. (The answer was in the negative.) He was induced to ask the question, because his (Mr. S.'s) father had died from symptoms very similar to those affecting Sir David, and in his case valvular disease existed, and was recognizable during life. His father resided at Clapham, and retired to bed one day as well as usual; presently after he was heard to fall on the floor; on being found and placed in bed, he could not articulate; the pulse of each wrist was different in its beat from that of its fellow. He (Mr. S.) arrived at seven p.m., at about four hours and a half from the attack; the power of utterance was still absent, but the patient was evidently conscious. At midnight he died suddenly, apparently while awaking from a quiet sleep. On the following day the body was examined, when no disease was discovered in the abdomen; but in the chest, one to two pounds weight of clotted blood was seen, and a large quantity of blood had made its way into the posterior mediastinum.

Mr. H. Johnson offered to describe the condition of Sir David when he first saw him. He found him sitting with his hand on the epigastrium, the seat of agonizing suffering. Sir David at once urgently requested that an emetic should be administered, but with this request he did not comply; an opinion against it also was maintained by his seniors on their attending; the impropriety of the step being also since sanctioned by the asser-

tained condition of the sufferer. He was then cold, the lips were blue, the pulse was small, the countenance portrayed intense anxiety and suffering, and Sir David felt convinced that he should die. The morbid appearances were those detailed by Dr. Johnson. He (Mr. J.) believed that aneurysm of the thoracic aorta was extremely difficult to detect, and that even the most elaborate medical inquirers had admitted that fact. Dr. Green, it was true, had, in an able article in the Dublin Journal, arrived at the conclusion that the morbid condition could be predicated, yet the indications amounted in his opinion to little more than a series of guessings. In rupture of the aorta into the pericardium, it was not generally considered that death must necessarily follow immediately after the accident, and in Sir David Barry's case several hours had elapsed between the accident and the termination of life.

Dr. Chowne said he was aware that Sir David Barry was impressed with the idea that he labored under an affection of the heart. Was Sir David of the same opinion during the present attack ?

Dr. Johnson replied that about four years ago Sir David called on him, and requested that he would examine his chest with the stethoscope, as he (Sir David) feared that his heart was affected ; but at that time no disease could be detected, although it was not impossible that the hypertrophied condition of the right ventricle had already commenced. As Sir David was inclined to be stout, and one who might justly be termed a bon-vivant, though not irregular in his habits, he (Dr. J.) recommended him to live rather more abstemiously. The circumstances of the sudden death of a Dr. B——were recalled to his mind on the present occasion. The doctor was rather an invalid, and he (Dr. J.) called to see him in the evening, when he found him taking his wine. He (Dr. J.) sat with him about half an hour, when, all at once without any evident cause, Dr. B. complained of pain in the head and stomach, and turned pale. Presuming that the doctor was fainting, he administered some brandy and water, which presently revived him, but, shortly after, the pain returned in the stomach and back with increased intensity, and in a few hours after he died. At the examination, a considerable quantity of blood was found effused, from the rupture of an aneurysm, which no doubt burst when he (Dr. J.) was first sitting with him, and the faintness induced arrested the hemorrhage, but at last the gush was too large to be thus checked, and death followed.

Mr. Costello related the case of a young gentleman who was brought into the Hotel Dieu, under the care of Dupuytren ; who had, while fencing, the point of a dagger thrust through the pericardium, which corroborated the opinion, and in a great measure served to lay the dispute that had long existed, whether such injuries were fatal or not. Dupuytren maintained that they were not always followed immediately by death.

A few other remarks followed, and then the subject dropped. The other discussions of the evening, as well as those of some other societies, shall find a place in future numbers.

CASE IN WHICH MR. WORTHINGTON PERFORMED PARACENTESIS THORACIS.

To the Editor of the Lancet.

SIR: Will you allow me to make one or two observations on the case of paracentesis thoracis, which is published at page 801 of the Lancet of September the 19th.

It appears to me that Mr. Worthington has fallen into error in describing the case which he treated so judiciously as one of hydrothorax, and that he errs still more when reasoning upon it. He adduces it as an instance of primary hydrothorax, repudiating the opinion

of Mr. Lawrence as to the rarity of such an affection. I differ from Mr. Worthington in his diagnosis, for the following reasons:

First. Mr. W. states that "the fluctuation of the contained fluid could be distinctly heard by the patient and bystanders, on succussion. It is a well known fact that in order to render the fluctuation of a fluid in the pleural cavities perceptible to the ear, the presence of air is absolutely necessary in addition to the fluid, and that the only disease in which this phenomenon is observed is that of pneumo-thorax, of which it is pathognomonic.

Secondly. Mr. W. describes the fluid which he evacuated as being "sero-purulent." Now, I apprehend that in essential hydrothorax the fluid must be of a serous nature. If not, whence the purulent tendency? It must arise as a product of inflammatory action. If in the lung or the pleura, it cannot be termed "primary," "essential," or "idiopathic hydrothorax." In chronic pleurisy we frequently have effusion into the pleura of sero-purulent fluid, but we should hardly call such an affection "primary hydrothorax."

Thirdly. In six thousand cases which came under the observation of Andral, perhaps the first pathologist in the world, there were only five in which the hydrothorax was not found to depend upon organic disease. (*Vide Clinique Medicale.*)

From these facts, and from others mentioned in the history and symptoms of the case, I think Mr. Worthington would have been more correct had he denominated the case "empyema complicated with pneumo-thorax." Hydrothorax, in the true meaning of the word, it certainly cannot be denominated, and, consequently, the deductions drawn from it against the opinions of Lawrence, Andral, Laennec, in fact of all modern pathologists, are incorrect.

In empyema the operation has frequently been performed, and occasionally with success; and I consider that Mr. Worthington's treatment of the case reflects great credit on his judgment and skill. The observations which I have ventured to offer I am sure he will receive in the spirit in which they have been made, the elucidation of truth being my only object. I am, Sir, your most obedient servant,

CHARLES ROBERT BREE.

Stowmarket, September 23, 1835.

SPONTANEOUS CURE OF A TRAUMATIC CATARACT.

The question whether cataract admits of any cure otherwise than by an operation, has long been debated in surgery. Many writers deny the possibility of its being removed by absorption under the influence of external treatment, while one or two French surgeons of the present day (who pass by-the-by for charlatans in the profession) oppose with warmth all idea of operating, and profess to cure cataract in all its stages by simple medical applications. The case now before us, however, seems sufficiently authentic to deserve consideration.

In the month of January 1834, Dr. Paolo Gerson was called in to visit Francesco Brussi, a child five years of age, who had received a stroke from a sharp-pointed knife in the right eye. Seen two hours after the accident. The little patient presented the following symptoms: a portion of the aqueous humour had escaped; the iris was uninjured, and did not prolapse beyond the small wound in the lower part of the cornea; however, the crystalline lens appeared somewhat troubled, and the surgeon was led to conclude that it was injured, particularly as the patient saw very little with the eye, although the pupil and iris were in a normal state. The child did not complain of any pain in the orbit, and

though no symptom of inflammation declared itself, the fear of secondary cataract induced the author to apply six leeches round the temple, and give gentle purgative medicine. At the end of three days no unfavorable symptom appearing, the case was left to nature. At this period the formation of a cataract was very visible. There was a cloudy spot in the eye, and the edges of the wound showed a tendency to unite with the subjacent portion of the iris; an astringent collyria was ordered, to combat the opake spot, which produced an excellent effect, and after three days the child was permitted to amuse himself as usual. The parents were recommended not to employ surgical assistance, for the removal of the cataract, in too great a hurry. Four months had elapsed, when M. Gerson was again called in to see the patient, whose parents entreated him to undertake an operation. On examining the eye he perceived that absorption of the cataract had already commenced; there was a small perforation in the centre of the cloudy body. Extract of belladonna was now rubbed over the eyebrow, and the dilatation of the pupil permitted this fact to be established beyond any doubt. As the pupil gradually dilated, the absorption was seen to proceed, and was ultimately completed.—*Il Filait. Sebezio.*

NEW PRINCIPLES IN OPIUM.

Two new principles have been discovered in opium by M. Pelletier, who thus names and describes them in the *Journal de Pharmacie* for September.

Paramorphine.—This substance is white, scarcely soluble in water, and very soluble in alcohol and in ether. Even in cold water it has a bitter and styptic taste. By spontaneous evaporation, it crystallizes in needles, which adhere to the sides of the vessel. It is slightly soluble in the acids; the alkalies precipitate it from its solution, and an excess of alkali does not redissolve it, unless the alkaline solution is very concentrated. The solutions in acids never yield crystals; the evaporation only furnishes small yellow plates. It is not velatilized at a high temperature, but it is decomposed in the same manner as the other vegetable alkalies, yielding nitrogen compounds. It differs from morphine in its not being reddened by the action of strong nitric acid, and in its not forming crystallizable salts with the acids; nor is it changed to a blue color by the salts of iron. It resembles codeine by its solubility in alcohol and in ether, and by its alkalinity; but it differs from it in not forming large crystals, nor forming crystallizable salts, and in its being precipitated from its solutions in acids by ammonia. It has no analogy with narceine or nicotrine. The only substance which paramorphine nearly resembles is narcotine; however, the difference of the taste, of the fusibility, and of the solubility in alcohol, is sufficient to distinguish the one from the other.

Pseudo Morphine.—It is but slightly soluble in water, and still less so in alcohol and in ether. Alcohol at 36° R. takes up a little more: solution of ammonia does not sensibly dissolve it; the solutions of potass and soda dissolve it in large quantity, and on saturating the alkalies by an acid, it is precipitated; an excess of acid seems to slightly favor its solution. Strong sulphuric acid turns it to a deep brown and changes it. Nitric acid acts on it in the same way as on morphia, and produces an intense red color, and finally converts it into oxalic acid. The most remarkable property of this substance is the intense blue colour which it strikes with the persalts of iron, especially the permuriate. This color disappears when there is an excess of acid, in the same way as morphia does. The affinity of this substance for the oxide of iron is such, that although it resists the solvent power of sulphuric acid, and is dissolved only in small quantity by hydrochloric (muriatic) acid, yet the permuriate of iron dissolves a considerable quantity of it. This solution is of a fine blue color. When heated, it becomes of a dirty green: on adding a little ammonia, there is a slight precipitation, and the liquor takes the color of Alicant wine, and

the organic matter cannot be removed without complete decomposition. These phenomena are nearly the same as those presented by morphia when similarly treated. When submitted to the action of heat, the pseudo morphine does not volatilize; it does not undergo complete fusion; it is decomposed at the moment it seems to become soft. Distilled in a glass cucurbite, it yields a little oil, and a little water slightly acid, but from which potass disengages ammonia. A large quantity of carbon is condensed when the cucurbite is exposed to the air.

The following is the analysis of the substances compared with morphia, according to to M. Liebeg :—

	Paramorphine.	Pseudo Morphine.	Morphine.
Carbon - - - - - -	71.310	52.74	72.340
Hydrogen - - - - - -	6.280	5.81	6.360
Nitrogen - - - - - -	4.408	4.08	4.995
Oxygen - - - - - -	17.992	37.37	16.299

ESSAI SUR LE COLIQUE DE PLOMB.

These de M. A. Grisolle, Interne Hotel Dieu.

This essay is one of those productions which from time to time reflect so much credit on Paris as a school of medicine. It is not a simple thesis, written for the mere purpose of obtaining a diploma, but a profound investigation of a subject which has often occupied the serious attention of practitioners, without receiving too much light from their researches. M. Grisolle is a pupil of the Louis school, and the thesis now before us is a proof of the immense superiority derived from a careful and accurate examination not only of the symptoms generally attributed to any particularly disease, but of all the symptoms which the patient may present during the course of his malady. Pursuing this method, M. Louis and his school have not only arrived at the discovery of several principles which had been overlooked, from time immemorial, from want of attention and corolleration, but they have also thrown an immense light on symptomatology and diagnosis. M. Grisolle's thesis consists in an analysis of fifty-eight cases of painter's colic observed by him with minute attention at the Hopital Beaujon during the year 1834. We shall notice some of the most interesting facts which he has established.

M. Chomel is of opinion that painter's colic is much more frequent in summer that in winter, and attributes this difference to the greater activity of the works in lead during that season; but in a manufactory, where the same number of workmen were employed the whole year round, the author found the average proportions as follows :—for the warm months (May, June, July, and August) 103; for the middle season 93; for the cold months (November to February) 89.

The age seems to exercise a certain influence on the susceptibility of contracting the disease, for if we divide the ages of those received into the hospital during the last 8 years into four groups, viz., from 18 to 30, from 30 to 40, 40 to 50, and 50 to 57, we find the following to be the mean residence for each in the workshops, before contraction of the disease, 65, 60, 58, and 37; hence the number of days necessary to gain the disease evidently diminishes with the age.

Authors are generally of opinion that the red lead is more injurious than the white, but there are few or none who support this assertion by a comparison of numbers; in the absence of other facts we must accept the testimony of the author, who found that eleven workmen at Clichy could work at red lead during a period of seventy-three days before

they fell ill, while the workmen on white lead at the same establishment fall ill before a lapse of sixty-five days.

As it is not our intention to follow the author through the whole of the laborious researches which he has made on all points of the disease, we shall merely give a *resume* of the symptoms which constitute the disease, viz., intense pain in the abdomen, constantly affecting the patient when the disease was fully established; but, however, becoming exasperated at intervals more or less approaching one another. The colicky pains irradiate towards the loins, the rachis, the parietes of the thorax, and even to the genital organs or thighs. Their essential character is in general to be calmed under pressure: they are sometimes accompanied with retraction of the abdominal muscles: symptoms of gastric derangement now soon come on, such as bitterness in the mouth, nausea, bilious green vomiting: in the intestinal canal we have almost the appearance of strangulation; there is a stop to the passage of stercoral, and even of gaseous matter; the urine is secreted in less abundance; but in the midst of these sufferings, which are sometimes terrific, the pulse remains calm, and even frequently descends below the normal number. Finally, we sometimes observe, either during the disease, or as consecutive symptoms, various accidents relative to the functions of the cerebrospinal axis, as convulsions, delirium, coma, general or partial paralysis affecting the limbs or organs of sense.

The *abdominal pains* are among the most constant symptoms of colica pictonum, and that by which the commencement of the disease is most clearly characterized. As to the circumstance so generally noticed by authors, of their being relieved by pressure, we find the following results from an analysis of the fifty-two cases which M. Grisolle has followed, viz: in forty cases the pains were relieved by pressure; in seven, pressure neither augmented nor relieved the pain; and, finally, in five cases the patients' sufferings were exasperated by pressure on the abdomen, whether moderate or powerful

Retraction of the belly has also been described as a special symptom of the colica pictonum; however, it is not a constant one: thus, in forty-six cases in which the author sought this symptom with the utmost care, he found thirty-one in which the abdomen presented the ordinary volume and appearance; in fifteen only he found the abdomen retracted, and even in many of these cases the symptom was so little apparent, that it required a good deal of care to determine its existence.

Nausea and vomiting are also symptoms which frequently exist. The author has observed them thirty-two times in forty-six; the matters ejected were always greenish, and excessively bitter; they bore no relation to the intensity of the disease, and seemed to be idiopathic, as they were removed by means directly addressed to the stomach.

The *slowness of the pulse* is also a symptom frequently noticed by authors. In the cases reported by M. Grisolle, the pulse varied between forty-eight and eighty-four the first few days of the disease; and in all cases where the pulse was as low as forty-eight, the malady prevailed with great intensity.

The *pains in the genital organs*, which are more commonly situated in the traject of the spermatic cord than in the testicles themselves, were noted in a little more than one-fourth of the patients. When pains existed in the extremities, it was the lower which were most frequently affected (three-fourths to one-half), while in one-third of the patients the loins were the seat of pains not unsimilar to rheumatic ones. The headache was always of short duration, and was noticed only nine times in thirty-seven cases. In the seventy-eight cases of colica pictonum analyzed by M. Louis, the proportion is somewhat less, being about one-sixth. (?)

Epilepsy is one of the most grave accidents that can arrive during the course of colica pictonum, but it would not appear that it is a frequent one. The author observed

only two cases in his fifty-eight. The disease appeared suddenly, and carried off both patients after thirty-six hours. Paralysis also appears to be a consequent of rare occurrence.

The march of colica pictonum is very irregular, but its termination is in general favorable. The want of accuracy prevents us from giving any faith to the results noted at La Charite by MM. Gardane, Merat, and Duchesne. In the fifty-six cases of the present thesis only two died, as we mentioned, from a sudden attack of epilepsy. The intestinal canal in these two was examined with the utmost care, but no trace was found of abnormal coloration, softening, or hypertrophy of the tissues. The cerebral convolutions were generally flattened, and the anfractuosities nearly effaced: the consistence of the brain was diminished throughout, but there was no trace of injection or of serous or sanguineous effusion in any part of the nervous centres.

The treatment of the colica pictonum has been various. That employed in the greater number of cases recorded by the author was the method so universally known as "the treatment of La Charite," and which consists in giving opium with purgatives, by the mouth or rectum. The purgatives, however, are what we in England would call laxatives; thus the lavement most commonly administered was.

℞. Decoction of Senna ℥ij ; Sulphate of Soda, Mercurial Honey, aa. ℥ij ; Water q. s.

These lavements were administered alone, or combined with opium, to sixteen of the patients, of whom seven were affected with the disease in a very intense form. During the course of the disease, which on an average lasted five days and a quarter, they took six lavements, and five grains of opium. The other nine patients were affected less intensely ; they were cured in four days and a quarter each, and took about four lavements and three grains of opium. This latter remedy was never administered until the constipation had been overcome, and the patient already more or less relieved. In six cases purgatives were given at the same time by the mouth and rectum ; under the latter form they produced more abundant evacuations and most relief ; these patients were cured in a period of seven days and a quarter. Three different kinds of purgatives were employed, viz. castor oil, mixed with one to three drops of croton oil, and the huile d'epurge, a lead remedy. *En resume* the patients thus treated by the evacuant method were cured in a period varying from five days and a quarter to eight days, the maximum of treatment.

Within the last few years M. Gendrin has energetically insisted on the value of sulphuric acid, both as a prophylactic against the colica pictonum, and as a remedy for the disease when fully established. However, the researches of M. Grisolle seem to throw more than doubt on the first of these properties. Thus at the manufactory of Clichy, the mean duration of the workmen before catching the disease is seventy six, when they have not drunk the sulphuric tisan ; while those submitted to the prophylactic treatment of M. Gendrin do not remain more than fifty days free. As to the comparative value of the treatment called that of "La Charite," and the acid treatment, it requires a more extensive comparison of facts than we as yet possess, to enable us to judge between them.

PROFESSOR BENEDICT'S FRAGMENTS.

The first article we have to notice in the present No. of Rust's Magazine, is a kind of review of the surgical clinique at the University of Breslau for the years 1828 to 1833 inclusive. The number of patients treated during that period was 5712, viz., 2812 surgical, and 2900 ophthalmological cases ; however, the number of the former

selected for clinical purposes did not exceed 700, to whom alone the following observations refer.

Lithotomy.

This operation was performed during the six years thirteen times; once on a girl of twelve years; the rest on males, the oldest of whom had reached the age of fifty-three. All these patients were cured, with the exception of four, none of whom died immediately after the operation. Thus one of these four, a boy sixteen years of age, had been dismissed cured from the establishment, but died eleven weeks after of typhus fever. The second died fourteen days after the operation, when the left kidney was found in a state of suppuration, and the right one engorged. In the third case, death on the 11th day evidenced suppuration of the left kidney, extending down to the pelvis. The fourth case was fatal on the fourth day from peritonitis. In reference to lithotomy, Professor Benedict relates a very curious case, which, on account of its termination, is worthy of record. The patient, fifty-three years of age, who had long suffered from symptoms of stone, was received into the hospital in 1816, but left it without an operation having been performed. After a lapse of twelve years the patient presented himself again, but during this time the calculus had acquired such a magnitude, that whenever the sound was passed between it and the bladder it became locked. It was thought scarcely possible to remove the stone by an operation; however, this was undertaken, and the incision being prolonged considerably towards the rectum (which was not injured), the calculus was extracted after its outer shell had given way under the forceps. The stone weighed seven and a half ounces, without counting several fragments that were lost. On the fifth day the patient was seized with low typhus fever, without any signs of inflammation of the urinary or abdominal organs. The usual stimulants seemed of no avail, when the author accidentally learned that his patient was a confirmed brandy drinker. All other means were at once laid aside, and the patient given a tablespoonful of brandy every two hours. This treatment was followed by such happy results, that in four days the quantity of brandy could be diminished, and the patient was content with a glass at breakfast. The patient was discharged cured after some months.

Ligature of Umbilical Hernia.

This operation was practised twice, according to Dessault's method, within the period above mentioned. Although both cases were successful, the author says he would neither recommend nor undertake it again. In these as well as in all the other similar operations practised antecedently, symptoms of severe inflammation of the abdomen set in after the third day, and were combated often with very great difficulty. The author has frequently remove fungoid excrescences from the navel of young children by the ligature (a disease frequently met with at the Clinique), without giving rise to any of the accidents before described.

Strangulated Hernia.

Herniotomy was performed sixteen times in the period between 1828-33; five cases of inguinal hernia, two deaths; eleven cases of femoral hernia, four deaths. In most cases the fatal result arose from gangrene of the intestine.

In one case of inguinal hernia the patient was going on in the most favorable manner, when he was suddenly seized on the fifth day with trismus (in consequence of exposure to cold), and died in thirty-six hours. The autopsy did not afford any result.

In a case of femoral hernia in the female, the epigastric artery, which ran transversely

over the sac, was divided. The wounded vessel immediately gave a strong gush of blood and revealed the accident; the stricture was divided, as the author is in the habit of doing in all cases of hernia, from below upwards, and from without inwards. The divided artery was immediately tied, but the patient died of gangrene.

Amputations.

Amputation of the extremities was performed twenty-five times; of the upper arm five, one death; one case of medullary fungus of the fore-arm, cured; of the thigh fifteen, cures ten; of the leg four, two deaths. The amputation of the upper arm was performed in three cases after Alanson's method (the funnel-shaped stump); in the rest with a single flap; that of the fore-arm with a single flap; of the lower leg, the single flap; of the thigh, in three cases, with the double vertical flap; in one case with the single flap; in one by the circular method; and in the rest, according to Graefe's modification of Alanson's method.

Cancer.

The operation for cancer (not including cancer of the lip) was performed thirty-seven times. However, with the exception of one or two cases treated by arsenic and apparently cured, a radical cure was not obtained in a single case.

Extirpation of the breast was performed three times, and under circumstances apparently very favorable; in all the disease recurred again. Of ninety-eight amputations of the breast, which the author has performed since he undertook the charge of the clinique, two ended fatally from exhaustion during the healing of the wound; and in all the rest, with the exception of thirteen, the disease returned after the wound was healed, and terminated in death. With regard to the remaining thirteen the author observes, he is morally convinced that in several cases an error of diagnosis was committed, and breasts were removed that were merely affected with scrofulous tumors, sarcoma, or some other innocent change of structure.

The above results are worthy of serious attention, and serve unfortunately to confirm the opinion advanced by many surgeons, that in most cases cancer is a constitutional not a local disease. After an investigation of a great number of morbid specimens of this disease, the author proposes to divide scirrhus into three kinds, viz., the lardaceous, the hydatiform, and the knotty scirrhus. Passing by the two former as sufficiently known, the author gives some remarks on the latter that are not without interest. This is a rare affection, and, on account of its march, is frequently confounded with a malignant and fatal form of scrofula. The patients are generally affected with small knots in one or both breasts, which do not coalesce during the progress of the disease. After these appear the ordinary tumors in the axillæ, and at the same time we perceive ranges of small knots along both sides of the neck, tumors in the inguinal region, on the shoulders, and in several other parts of the body. Each of the knots now mentioned remains isolated, but approaches the skin, and finally becomes attached to it. The integument here assumes a hard, cartilaginous feel, is covered with varicose veins, and turns into a single small cancerous tumor. The patients now generally suffer under pectoral symptoms, with abdominal derangement, and in all the cases which occurred to the author death took place in less than six months.

Cancer of the lip was removed in fifty-one cases, all successfully except one, where the patient was in a state of great weakness at the time of the operation. The author, however, regards it merely as a palliative operation, as it invariably returns in some other part of the body, or in the cicatrix itself. There are indeed a few cases in which the tumor did not reappear, but here it was evidently a local disease, produced by some external

cause, and not perfectly identical with the cancerous disease. As far as the author's observations extend, this false cancer is generally situated in the red surface of the edge of the lip, and does not pass beyond it, is more flaccid, and is chronic in its march; the sympathetic swellings in the neck are wanting. According to the opinions of modern surgeons, we may hope for a successful result whenever there are no tumefied glands under the jaw or in the neck; but from the author's experience, the absence of these signs does not justify a favorable prognosis. Either small soft tumors of the glands already exist, as may be discovered by a minute and careful examination of the parts in the neighborhood; or the lymphatic system is implicated, without any actual enlargement of the glands, which does not take place until some time after the healing of the wound.

REDUCTION OF STRANGULATED HERNIA BY THE EXHAUSTING PUMP.

The use of the air-pump, as an agent in the reduction of hernia, was first noticed, we believe, by Professor Hauff in the year 1818. Hufeland's Journal for July 1832 also contains some remarks by Dr. Busch on the same subject. Finally, the No. of Hecker's Journal now before us contains several cases, which, as they are probably new to our English readers, we shall notice briefly.

Case 1.—In October, 1833, the author, Dr. Kohler, was called to a Jew, sixty years of age, who had suffered for the last nine years from scrotal hernia. After some days of a fit of indigestion the patient began to suffer from pain in the abdomen, and the hernia could not be returned even by a surgeon; the symptoms were now rapidly aggravated, and the author on his arrival found the patient in a state of great danger. According to the account of his attendants, the hernia was strangulated for three days; the face was now sunken, the body covered with a cold sweat, the extremities cold, the pulse barely perceptible. No stool for the last three days. The author had immediate recourse to all the common remedies, venesection, cold applications, narcotics, enemata, baths, drastic purges, &c., without any effect; the danger was most pressing, and nothing seemed left but the operation; however, the exhausting pump was tried as a last resource. Immediately after the application of the apparatus, which was placed over the abdominal ring, the operator began to perceive some gargouillement in the hernia; this gave encouragement, and in a short time, to his great pleasure, the parts were restored to their natural position. Alvine discharges were obtained in a few hours, the vomiting ceased, and the patient was restored to health in a few days.

Case 2. In January 1834, a female, sixty years of age, was affected with inguinal hernia on the right side, and sudden femoral hernia on the left side; it was impossible to return this latter; symptoms of strangulation soon set in, and the necessity of an operation was agreed on in a consultation of surgeons. The air-pump was applied. After the first application a little gargouillement; after the second, partial return of the gut; after the third, complete reduction of the hernia.

LITERATURE OF SYPHILIS.

This is an analysis, completely in the laborious German style, of all that has been written on the venereal disease during the years 1831 and 1832. The works of authors which are analyzed (alphabetically arranged) amount to no less a number than fifty-seven, and the series is not yet completed. Those who occupy themselves specially on syphilitic diseases will here find a fund of curious, and no doubt useful information, for not one has been neglected.—*Lancet.*

INTESTINAL OBSTRUCTION FROM RAW WHEAT.

To the Editor of The Lancet.

SIR,—Permit me to transmit to you the report of a case, wherein a fatal result was near occurring, from a habit on the part of the patient of eating raw wheat.

I am, Sir, your obedient servant,

J. L. M'CARTHY, M. D.

Macroom, October 14, 1835.

On Thursday, the 8th instant, I was sent for to visit John Leary, ætat. 35, living at Toames, three miles from hence, a steward in charge of a farm belonging to a gentleman of the name of Penrose. I found the man in bed, laboring under the most agonizing pains, which he referred to the anus, rectum, and loins. He was bathed in sweat; his countenance expressed the greatest anxiety, but he suffered no headache nor delirium. His tongue was coated with a thick white fur, but moist; there was no affection of the chest or of the respiratory faculties, nor any complaint of the stomach, but he had much thirst, urgent desire to urinate, and evacuate the rectum, without ability to effect either. The abdomen felt quite soft on pressure, except over the pubic and left iliac regions, where distention of the bladder, the sigmoid flexure of the colon, and the rectum, could plainly be perceived.

On making an examination per anum, I found its verge considerably swollen and inflamed, with great contraction of the sphincters, and so tender and irritable, that it was with much difficulty that the patient would allow me to proceed with the examination. He said he had been ill during the last three days; that during the first and second days of his attack, he only felt occasional fits of pain in the anus and loins, but that for the last sixteen hours, or thereabouts, he was in extreme agony, with but occasional slight intermissions. He had not had an anal evacuation for the last four days, and from ten o'clock P. M. on the previous evening had not passed any urine up to the time when I saw him, which was one o'clock P. M. on the following day. He said to me, that being for some time previous to his illness superintending the thrashing out of a large quantity of Mr. Penrose's wheat, he had, as was often his habit, eaten some of the grain as he proceeded, and to that he attributed his illness. He went on the second day of his illness to the Macroom Dispensary, where he was ordered a dose of castor oil, but no effect followed its exhibition.

Having by mistake omitted to bring a catheter with me, I sent home for one, and in the mean time proceeded to examine the rectum internally. With considerable difficulty I introduced my little finger, well oiled, into that cavity, and found it extremely distended. It was, in fact, completely blocked up with a hard mass of undigested wheat. The agony which the patient suffered from this exploration, forced me to desist for a short time, when I determined on attempting to extract some of the wheat from the bowel. I accordingly procured a small egg spoon, and having well oiled the handle, introduced it into the rectum, and detached and brought away from the mass about two ounces of semi-masticated wheat. By this means I obtained a little more room, so that I was enabled to force into the rectum a few small pieces of mutton suet, which I allowed to remain until they had melted. This had the effect of lubricating the part and softening the contents of the cavity; so that on a second attempt with the spoon-handle I succeeded in clearing out about ten ounces more of the wheat: the patient all this time complained of almost intolerable suffering. Having desisted for a time in order to allow him some rest, he felt an urgent desire to go to stool, but the attempt was unsuccessful, owing to the tenderness and constriction of the anus. He was, however, able to urinate, and voided about two and a half pounds of fluid.

On making my next examination, I found that the attempts to evacuate the bowels had brought down more of the wheat into the rectum, which was again filled to distention, but the mass was not so hard as in the first instance; and on again operating I succeeded in removing about twenty ounces more. The patient expressed himself as much relieved. I had by this time in all brought away about two pounds of wheat.

As I found his pulse full, quick, and bounding, I bled him to ℥xxv, when he became faint. I then had the rectum stuped for about an hour, and gave him a draught containing an ounce of castor oil, fifty drops of tincture of henbane, and an ounce of cinnamon water. Half an hour afterwards an enema was administered, followed by a purgative draught. Six hours afterwards I found him free from pain, and in a sound sleep. His bowels had been much affected by the enema and medicines, and an immense quantity of wheat, with some white starchy stuff, had passed from his bowels. The anus continued tender for a few days, but by keeping the bowels soluble with small doses of Magnesian salts, he perfectly recovered.

SALIVARY CONCRETION IN THE SUBMAXILLARY DUCT.

To the Editor of the Lancet.

Sir: Should you consider the following case worthy a page in your widely circulated and valuable Journal, the insertion of it will greatly oblige your obedient humble servant,

W. A. Elston, Surgeon.

Braybrooke, Northamptonshire, Oct. 20, 1835.

James Whitehead, a young man about twenty years of age, called on me Sept. 4, for my advice respecting a swelling on the right side of his neck, of which he had been the subject at times for four years, but which within the last week had considerably increased in size, and become exceedingly painful.

On examination, I considered it, from its situation, to be an inflamed and considerably enlarged submaxillary gland. It was very painful on being touched, and the patient was the subject of a high degree of fever. I ordered eight leeches to be applied to the tumor, and gave him a calomel bolus and a black draught, with a continuation of a saline aperient mixture. On the 6th I saw him again, and found the swelling more painful, and somewhat increased in size. I ordered the leeches to be again applied, and the purgative medicines to be repeated. Two days after this, on seeing him, he complained to me of pain under his tongue, and on examination there appeared to be an enlargement at about the termination of the submaxillary duct of the right side, and on applying my finger I could distinctly feel a small hard substance. I was at once apprised of the occasion of all the external swelling and violent pain which the man had complained of for so long a time, and, by means of a probe, gently dilating the orifice, and with a small pair of forceps, to my great satisfaction I extracted from the duct a salivary concretion, moulded to the shape of the canal, of about three quarters of an inch in length; the moment this plug was removed, his mouth was almost filled with pus of a bloody character, and some clear saliva. He experienced immediate relief, and the swelling was at once reduced from the size of a large hen's egg to a mere trifling enlargement, and it is scarcely necessary to add, that in the course of a few days the man felt himself quite well. There was for the first two or three days a frequent discharge, but after this time he could perceive nothing particular either of the pain or discharge.

I felt much interested in the case, for, on inquiry, I found that he had perceived slight pain and swelling at times for four years previous to this date, and occasionally had had severe pain; and that he scarcely ever sat down to a meal without an almost sudden

enlargement of the gland, and particularly so within the last six months, which swelling he could always disperse by pressing on it a short time with his finger.

The sympathy existing between the nerves of smell and taste was, in this case, most beautifully illustrated; for, according to the patient's account, he could never pass a savory smell without feeling this sudden enlargement and pain, and he said he had dined but a few days previous to my seeing him from a meal which, to use the man's own words, "always used to make his mouth water," but which in this instance, in consequence of the outlet of the duct being completely closed, had produced so violent a distention of the gland, as at once to set up such a degree of active inflammation, as shortly afterwards led to the discovery of the nature of the disease, and to his relief from suffering.

AUSCULTATION IN VESICAL CALCULI.

To the Editor of the Lancet.

SIR: I hear that the last number of your medical Journal contains the description of a new instrument which is intended to facilitate the diagnosis of vesical calculi. A sort of stethoscope, added to the catheter, appears to be the principle of this *invention*. Without wishing to engage in any discussion about so trifling a matter, I may, in justice to truth, positively affirm having six years ago applied to Monsieur Charriere of Paris, who made me a long catheter, the handle of which I had topped in the shape of an olive, so as to adapt itself to the ear. I made several experiments on the dead subject with this instrument, and was quite satisfied how easy it was thus to distinguish any and various foreign bodies in the human bladder. I have shown this simple instrument (or spoken of it) to many surgeons in France, in Italy, and in London; nevertheless I am far from accusing Mr. Brookes of taking the advantage of thoughts of another person; and if I am induced to write these lines, it is to corroborate his opinion of the usefulness of such an instrument. The hand of the most talented operator has sometimes deceived his senses. I saw Baron Dupuytren cut for stone where none existed. My friend Professor Roux nobly confessed the same error. I could mention other similar mistakes, but the examples already given are more than enough to prove the utility of using the ear in the examination of the bladder. The hand assisted by the ear will no longer commit such direful errors; nor will patients, operated on for stone by MM. Civiale, Heurteloup, Amussat, &c., be sent away in full *security* as perfectly cured, with calculi or fragments of stone in their bladder, such cases now being generally known to have occurred. Hoping, Sir, that surgeons will not henceforth neglect this sign in the diagnosis of diseases of the bladder, I have the honor to be, Sir, your obedient servant,

CLAUDIUS TARRAL.

Lawson's Bedford Hotel, Paris, October 8, 1835.

WESTMINSTER MEDICAL SOCIETY.

Saturday, October 18, 1835.—Dr. Addison, President, in the Chair

This evening the above Society held its first meeting for the new winter session, the members assembling, as before, in the Hunterian Theatre of Anatomy, Great Windmill-street. The minutes of a former meeting having been read and confirmed, the President acknowledged having received a work from Dr. Conwell on the Liver, for which thanks were returned.

The Secretary Mr. Thurnam announced the following papers as having been offered for reading before the Society:

1. On the Physiology and Pathology of the Teeth. By Mr. Mart.
2. On Catheterism, with a new form of Instrument. By Mr. Costello.
3. On the application of Mineral Magnetism to various Nervous Diseases. By Dr. Schmidt.
4. On the Influence of the Mind on the Diseases of the Body. By Mr. Smith.
5. On the Inefficiency of Bleeding in many diseased states. By Dr. Epps.
6. On Doses of Medicine. By Dr. Leonard Stewart.

Dr. Webster afterwards proposed Mr. Richard Quain, one of the Vice-Presidents, as President in the room of the late Mr. Gilbert Burnett, whose term of presidency (two seasons) expired a few weeks prior to his death. The doctor regretted that he could not do adequate justice to the memory of the deceased, but he felt satisfied that the members were fully sensible of the loss they had sustained in so indefatigable and useful a member of the Society.

Mr. Hale Thompson was next proposed to fill the office of Vice-President, and several gentlemen were afterwards nominated on the Committee for the ensuing year; the ballot to take place at the next meeting. (The Committee consists of ten members, and the other officers of the Society.)

Mr. Costello animadverted on the promises which had been broken last session, with respect to the production of papers, after the embryo authors' names had been conspicuously advertised both in and out of the Society. He was happy to find that such a measure had not been resorted to on this occasion, trusting, however that those members, though few, who had now come forward, would abide by their promises, or destruction would fall upon the Society. In alluding to the death of Mr. Burnett, he hoped that his successor to the Presidency would be requested by the Society to follow the example of their continental brethren, and pronounce an *eloge* on the memory of the deceased. The other business of the evening was then commenced.

REMARKABLE TUMOR.

Mr. Costello detailed the particulars of a tumor (laid on the table) which had been taken from a child, then four months old, by Mr. Renwick, one of the Surgeons of the *Canterbury Hospital*, now weighing full two pounds, but at birth not exceeding three ounces. The tumor (congenital) was situated at the lower end of the spinal column, at the extremity of the os coccygis, not implicating the rectum. It was removed by successive ligatures; no irritation was at first produced, but after eight days the irritation was so high, that the mother expected the death of the child to ensue. On the 22nd day the tumor separated from its bed, the pedicle measuring about two and a half inches in circumference. The cicatrix left at the part of separation was very peculiar, and might be likened to the fractured extremity of a fresh cabbage-stalk, when broken in halves. The cicatrizing surface was red, but no exudation had since occurred from it. The substance of the tumor it would be difficult according to existing nosology to define, but the term "lardaceous" he believed would be the most appropriate. The child did well, and was now in perfect health. The growth of the tumor absorbed, apparently, all the nutriment derived by the child.

The size and denseness of the structure, which was almost semi-cartilaginous, in such an infant was considered, generally, as very remarkable, and almost without parallel.—*Lancet.*

CASE FOR OPINIONS.

Dr. Johnson was anxious to obtain the members' opinions respecting a case on which he was consulted a few days since by a letter from Liverpool; and as only the initials of the patient were affixed, he (Dr. J.) saw no impropriety in laying it before the Society. The Secretary then read the letter, which contained the following particulars :—Mrs. S., aged 28 ; married. Two months back she began to suffer from a numbness of the lower extremities, now felt as high up as the iliac bones. She walks with a dread of falling. Has pain over the lower portion of the sacrum, which is increased by pressure. Lumbago ; abdomen slightly tympanitic; the bowels and bladder are evacuated freely; the catamenia are regular, but the discharge is attended with pain, during six days ; and she suffers from leucorrhœa. She has great debility, dyspnœa, palpitations, bad appetite, and pain about the epigastric region, but no symptoms of gastritis; prurigo; feet œdematous. The lady has been married seven years, but has no family. The lumbago is attributed to a fall received before marriage, and it has since been constant and severe. The leucorrhœa and dysmenorrhœa appeared immediately after marriage. Within the last twelve months she has been bled very frequently, and leeched and blistered ; has had two issues inserted, and she has been placed in hot baths ; to which treatment the medical gentleman who details the history of the case attributes the dyspnœa and palpitation. The pain and discharge from the uterus were so severe as to warrant the treatment. Injections into the uterus have been used. Mercury invariably produced diarrhœa. For the numbness no treatment had been directed, except blisters on each side of the spine, but these were not attended with relief. The diet now allowed is generous, and she is taking the mistura ferri composita. The lady is not hysterical, so far as the writer (a physician in Liverpool) could judge. The correspondent of Dr. Johnson inquired of him, can the numbness have arisen from debility, the combined result of the treatment and uterine disease; or is it paraplegia from spinal disease?

The President considered the case to be a complicated one, but not rare. The debility, no doubt, was attributable to the combined effects of the depletory treatment and the uterine affection.

Mr. Costello thought the case too imperfectly related to placed before the Society. Many other points were highly necessary to be ascertained, before the nature of the case or its proper treatment could be pronounced.

The President did not doubt for a moment that the numbness depended on an affection of the spinal marrow, but whether that affection was primary or secondary it was impossible to judge. In confirmation of this, he alluded to the case of a girl who had been received into Guy's Hospital, while the catamenia were present, and which were arrested suddenly by the affusion of cold water, followed immediately by a severe attack of pleurisy, attended with numbness and œdema of the inferior extremities; but so soon as the uterine disturbance was corrected, the pleurisy and other symptoms induced by the arrest immediately disappeared.

Dr. Johnson adverted to the fall which the patient had received, and said he had requested the advice of an eminent physician accoucheur and pathologist of this metropolis, whose letter in reply to that of Dr. Johnson was read, but it simply and briefly attributed the sufferings to spinal disease.

The President (by the special request of Dr. Johnson) gave his opinion on the treatment ; he suggested that perfect rest for months should be enjoined, and that a nourishing diet should be allowed, and anodyne injections used ; but during the time the catamenia were present, he would strongly recommend that the patient should move about,

as a sluggishness of the uterine functions at that time, he had found, greatly contributed to increase the debility. He could easily conceive why the stimulating preparations of iron had not proved beneficial. These he never prescribed under similar circumstances, for he had found that such stimulants naturally increased the irritation, and thereby kept up the pain, suffering, and disturbance. The same objection, however, was not to be urged against the diffusible stimuli, and from the carbonate of ammonia, rendered palatable to the patient, he had derived in his practice great benefit as a stimulant.

Dr. Ryan, in addition to this treatment, recommended small doses of strychnia, and the introduction of metallic sounds into the uterus; in the use of which instruments he had seen much benefit derived when cautiously introduced into the uterus, commencing with small-sized bougies, and gradually increasing them; for while the patients were suffering from dysmenorrhœa, he had ascertained by examination at the time, that the parts were much contracted.

Mr. Clarke observed, that whatever merit attached to this plan, was due to Dr. Macintosh, who introduced the practice.

Mr. Costello remarked that this formed one of the improved plans of treating urethral diseases, which he hoped shortly to lay before the Society.

Mr. Stretton then exhibited to the Society some diseased preparations of fungus hæmatodes, attacking different structures in the same individual, and the Society shortly afterwards adjourned.—*Lancet.*

LONDON UNIVERSITY MEDICAL SOCIETY.

Oct 16, 1835. Mr, Chippendale, President.

MOLLITIES OSSIUM.

(*From a Correspondent.*)—A paper on mollities ossium was this evening read to the Society by Mr. Piper, and followed by an animated discussion, in the course of which several theories on the pathology of the disease were advanced. Mr. Haymes thought that proof that phosphoric acid was superabundant in the system had been afforded by analyses of the bones of persons who had died from this disease, and that their insoluble phosphate became by this means converted into a soluble superphosphate, which was thus, with much greater facility, removed, by the absorbents diminishing more or less rapidly the quantities of earthy material. Mr. Packman advanced an opinion that the disease arose in consequence of deteriorated function of the periosteum, its arteries having lost their healthy secerning power, while the absorbents still continued to remove the portions of earthy matter that had already been deposited. Mr. Brent endeavored to follow up this view, and supposed the reason of the periosteum being unable to secrete a healthy deposit (in cases where immense quantities of common salt had been habitually swallowed by the patients, as has been said to have frequently been their custom) to be either the result of sympathy with the stomach and other organs of digestion, so greatly debilitated by the salt, or else that the salt itself soon became absorbed into the circulating fluid, and reacting upon the phosphate there, as well as on that contained in the osseous structures, produced two partially soluble salts, the phosphate of soda and the muriate of lime, which were immediately taken up by the vessels. He added that the disease might, on the other hand, arise from deficient action of the kidney, that organ becoming unable properly to separate the salts from the blood, which, by accumulation, would have the tendency of giving rise to the soluble salts. The phosphatic urine, he argued, was a sufficient proof that the urinary organs were somewhat disturbed. Messrs. Keyse, Brightman, Piper, and other gentlemen, also spoke on the subject, which continued to occupy attention until the period of separation.

DISTRESSING SICKNESS CURED BY CREOSOTE.

Dr. Elliotson, in a late lecture, related the following case, which shortly since occurred in his private practice. Mrs. P., a lady residing near town, when apparently recovering from an attack of sore throat, was seized with incessant retching and vomiting, accompanied with debility and depression both of mind and body. This distressing state continued for a week, during which period no food of any description was retained in the stomach. There was no pain on pressure, and no other inflammatory symptom. Wine, brandy, and even soda water, were all immediately ejected. The pulse was extremely feeble, and almost imperceptible, and she had frequent fainting fits. Two-grain doses of hydrocyanic acid, though repeatedly administered, had an effect in stopping the vomiting. She was supported during the week by nutritive glysters containing white of egg and milk. It was after a week, during which the above symptoms continued undiminished, that Dr. Elliotson was requested to see the patient. He ordered her two minims of creosote, to be given every two hours, and increased if the sickness continued, but to be diminished if it ceased. The first dose was thrown up, but a second, administered immediately after, remained on the stomach. The next dose, given in two hours, came up. Another was administered and retained. The vomiting had entirely ceased on the next day, without any increase having been made in the dose of the medicine, which was therefore now diminished in quantity, and, shortly after, entirely discontinued. The patient rapidly recovered, and is now in good health. Dr. Elliotson has had repeated opportunities (besides the cases already published in the Lancet) of trying the effects of creosote in vomiting, but as the details would present mere repetitions, we refrain from giving them. The medicine has certainly sustained in his hands a high character. The judicious directions, however, which Mr. Taylor affixed to the cases published by that gentleman in a recent number of the Lancet, should be carefully observed by those who make trial of the creosote.

LITHOTOMY.

Thomas Smith, aged 6½ years, was admitted, Oct. 15, under the care of Mr. Liston. He has manifested symptoms of stone from infancy, the most marked symptoms being a pulling at the prepuce, and violent pain while making water, which dribbles from him, soiling his clothes. During the time of micturition he is very restless, tossing about in every direction. These symptoms very much increased as he became older. Mr. Liston having sounded him and detected a stone, the boy's friends being anxious that the operation should be performed immediately, he was cut on the day of admission. The boy being held between the knees of an assistant, a small curved staff, with a groove a little on one side, was introduced, and held firmly by another assistant, towards the arch of the pubis. The incisions were made in the usual way with a common dissecting scalpel, and the bladder was reached. The staff was then withdrawn, and the stone extracted with a small pair of forceps in forty seconds from the first incision. On the 21st he was doing exceedingly well.

INGUINAL HERNIA, NOT STRANGULATED NOR REDUCED—OPERATION—DEATH.

William Harrison, admitted Sept. 14th, at 12 o'clock at noon. Sir Benjamin Brodie being absent, Mr. Cutler, the junior assistant surgeon, took charge of the case. On examination, there was found a punctured wound at the upper and inner part of the left thigh, on a line even with the base of the scrotum; and a large tumour of the

left side, of the usual size, and occupying the usual situation, of inguinal hernia. The man stated that he had been afflicted with "the windy rupture" for fourteen years, but that up to the present time he had been always able to return it easily. Four days ago he met with a fall, when a metal spike ran into his thigh, and at the same time he received a blow from an iron rod over the part now occupied by the hernial tumor. These he stated to have caused the descent of the hernia, which has been down ever since. Mr. Cutler saw him immediately on his admission, and after examining the case, he requested the opinion of Mr. Keate (who was going round the hospital at the time) upon it. The surface of the skin covering the tumor was red; and, in the opinion of some gentlemen present, crepitated upon pressure, indicating inflammation of the cellular tissue beneath. We could not, however, detect any symptom of the kind. The lower part of the tumor was harder (Mr. Keate supposed it to contain omentum) than the upper, which was elastic, and was driven down, upon the patient attempting to cough. A probe introduced into the wound of the thigh did not pass to any distance under the skin. There were no very urgent symptoms present; there was no vomiting or hiccup, and Mr. Cutler, we were told, was rather doubtful as to the tumor being a hernia at all. Yet it seemed very evident to every one else in what the disease consisted. Mr. Keate remarked that there were no urgent symptoms present, but that eventually the operation must be performed. The man was then we believe put into the warm-bath, and the taxis was employed, but ineffectually. He had been twice bled before his admission.

At 3 P. M. Mr. Cutler performed the operation, assisted by Mr. Hawkins. The layers of fascia were successively divided upon a silver director, until the sac was opened, and a large knuckle of healthy intestine from the sigmoid flexure of the colon protruded. Mr. Cutler pushed his finger up to the external abdominal ring, and declared that the intestine was not strictured by it, but that it was quite free. Mr. Hawkins pushed his fingers down to the bottom of the sac, and passed them completely around the gut; but, after further manipulation, the intestine was not reduced, but left extruded from the abdomen, and the wound was united by sutures. After the man had left the operating theatre* Mr. Cutler made some remarks on the case to the pupils present, the precise meaning of which we were unable to comprehend. Indeed we doubt whether any of the pupils who witnessed the operation were able to understand why it was performed; nor was it until in a conversation between Mr. Cutler and Mr. Lane, when the latter gentleman made some general remarks upon the case to those around him, that any one could account for the circumstance of a hernial sac being simply opened and sewed up again. Mr. Lane said that the contents of the hernial sac consisted of a portion of the sigmoid flexure of the colon uncovered by peritoneum; that it had become attached by long standing inflammation to the base of the sac which rested on the contents of the scrotum, and, by its posterior surface, to the anterior and inner surface of the muscles at the superior part of the thigh. These old attachments not being able to be broken down, the intestine was prevented from being returned into the cavity of the abdomen. It therefore follows that the statement of the man, previous to the operation, that he had been always able to reduce the swelling until the preceding four days, was untrue. Immediately after the operation he was ordered, calomel five grains; compound extract of colocynth, ten grains; to be taken immediately.

On visiting him in the evening, six hours after the operation, he was found much easier. The tongue was moist, the pulse 80 and compressible, and he complained of no

* The man was lifted from the operating theatre to his bed in Drummond ward, but owing to some great neglect he was, before the operation, walked into the theatre. The porter and surgery-men are new in their vocation, and like machinery on the first night of a pantomime, they work very "stiff"

fixed pain. The bowels had not been relieved, and he was ordered sulphate of magnesia, two drachms; infusion of roses, one ounce and a half, every three hours: and soda water for common drink.

Sept. 15. At half past twelve Mr. Cutler saw him; the bowels had not been opened, and he had passed a restless night; the tongue was dry, and furred in patches; the pulse 85, and full. There were also general pain and tension over the whole abdomen (which had been fomented with warm flannels), and severe headache. He had been ordered three grains of calomel every four hours. On finding the patient in this state, Mr. Cutler appeared anxious to "draw off the wind" from the belly, as a means of relieving him from the severe tympanitic tension under which he labored. The man was ordered to lie on his right side, whilst Mr. Cutler introduced an elastic tube into the rectum. This came in contact with the hardened feces, but did not bring away any "wind." A catheter was then introduced, and forced through a mass of feces, and a stilette was passed through the catheter, but no evacuation followed. Two stomach-pumps (Wiess's and Read's) were now procured, and an œsophagus tube was introduced, and warm water was attempted to be injected per anum. The mechanical action of Mr. Weiss's instrument mot being understood, it proved to be of no avail, and Mr. Read's was used instead; about a pint of water was injected, which the patient was unable to retain, and which served only to wet the draw-sheet on which he lay. Every method of drawing off the wind having failed, the man was left at rest, and the calomel ordered to be continued. The patient frequently complained of faintness, and vomited a little after the attempts at "drawing off" were discontinued. He was allowed beef-tea for diet. Mr. Cutler's reasons for acting as described, were founded upon his having followed a similar course in a "stone case," with great success; but doubts may fairly be entertained of the propriety of irritating the mucous membrane of the bowel near to the seat of a half-strangulated irreduced hernia, which had undergone a tolerable degree of manipulation scarcely twenty-four hours before. The justness of this opinion seemed somewhat confirmed by the necessity of bleeding the man in the afternoon, an operation which was performed by Mr. Cutler himself, to the extent of twenty ounces.

Vespere.—The bowels have not yet been opened; there is less tension and pain over the abdomen since the bleeding, and pressure can be borne. The blood is highly cupped and buffed; pulse 80 and small; tongue moist; has not been sick since the morning; slight singultus; countenance anxious.

16. He was again bled last night to the amount of six ounces; the blood is highly buffed and cupped; and has been again bled by the house surgeon to twelve ounces this morning, the blood being as much cupped, but less buffed. The pulse is 100 and small, the tongue moist, and countenance less anxious, but the bowels have not yet been opened. He passed a restless night, and is still restless; there is less tension and pain of the abdomen. His diet is beef tea. He was ordered calomel, three grains; compound extract of colocynth, ten grains; to be taken immediately. The prognosis of the case has now become unfavorable.

Vespere.—He is worse than at the morning visit; the bowels have not yet been relieved. Since the morning he has taken two doses of castor oil of one ounce each. Pulse quick and full, 100; abdomen tense and painful; countenance anxious; he is very restless. Soda water for drink.

17. On visiting the hospital this morning, his bed was vacant, and his body about to be removed to the dead-house. He sunk gradually, and died about twelve at noon. Purgative medicines, colocynth and calomel, calomel and opium, and croton oil, had been administered to him, but without the least effect; and from the time of the opera-

tion until the hour of his death, the bowels were never relieved. The last medicine he took was port wine.

Autopsy twenty-four hours after death.

On opening the cavity of the abdomen, the general appearance presented by the coats of the intestines was that of severe inflammation. On examining more particularly that portion of the sigmoid flexure of the colon which was extended through the abdominal ring, it was found to be deeply injected with blood, the red vessels appearing very prominently through the thin tunics of the bowel. It was not strangulated, and was returned very easily into the cavity of the abdomen by Mr. Lane, who was present. There was no band connecting it to the bottom of the sac, and nothing but a thin adhesion between one of the appendices epiploicæ, and the posterior part of the sac (which might easily have been broken down) prevented its complete return within the external ring. These were the only pathological points in the case worthy of remark. The cavities of the cranium and thorax were not examined.

From the above appearances which the examination disclosed, it would appear that the patient's death was caused by severe inflammation of the bowels, following a blow over a portion of extruded intestine. These symptoms were followed by constipation, hiccough, and vomiting. The operation was performed to relieve these latter, which it failed to do. The constipation was attempted to be relieved by purgatives given only by the mouth, the few injections that were administered being too mild (consisting principally of castor oil and sulphate of magnesia) to be of any service; whilst the severe inflammation was combated by four general venesections, of no great amount, the first of which was only performed twenty-eight hours after the patient had been in the hospital. Had the operation not been performed, and the venesection and purgation been pushed to a greater extent, and had a generally bolder line of practice been adopted, the termination of the case would probably have been different.

Some doubts, we believe, were entertained as to the propriety of holding an inquest on the body. It was, however, eventually determined that one should be held; when the assembled jury, with an ignorant coroner at their head (on what evidence we know not), returned a verdict of "Died from mortification." The morbid appearances afforded no ground whatever for the verdict, and a gentleman of competent anatomical and surgical acquirements, who also carefully examined the parts implicated in the hernial protrusion, informed us that he could discover nothing approaching in its pathological appearance to either sphacelus or mortification.

Lock Hospital.

CASE OF GONORRHŒAL DISCHARGE, ACCOMPANIED WITH CONDYLOMA AND CONDYLOMATOUS ULCERATION.

CASE 5.—Margaret Gawlor, ætat. 18, admitted Nov. 17, under the care of Mr. Walker. She has been on the town three months, and has had a discharge from the vagina nearly the whole of that time. The condylomata, with which she has been affected, have been present for two months. The vaginal discharge was preceded by a scalding in passing her urine. At the commencement of her complaint she took six calomel pills, one every other night; this affected her mouth, which is somewhat sore now. There is at present a profuse, thick, yellow discharge from the vagina, which exhibits some preternatural vascularity over the vestibulum and orifice. There is an irregular gray sloughy ulceration over a patch of confluent condylomata, elevated much above the surrounding skin, and presenting more or less a warty character and appearance, occupying the entire mar-

gin of the left labium and upper part of the right one, where however it is more circular and isolated; it also involves the right side of the perineum inferiorly and posteriorly to the labia. There is a thick yellow secretion from the posterior fauces; there is no increased vascularity about the throat and tonsils, which are but slightly enlarged; the right one, however, more so than the left. She complains of much general debility, and has a pleuritic pain in the left side, which prevents her lying on that side, and is some times increased on taking a deep inspiration. The tongue is clean but white; appetite impaired; pulse hard but compressible, 96. Bowels and catamenial secretions are regular. She never was pregnant, and denies ever having had any previous venereal disease.

Nov. 7. The acetate of lead lotion was applied to the ulcers.

8. This was changed for oxymuriate of mercury gr. ss. to ℥j; washed sulphur ʒj; carbonate of magnesia ℈j: every morning early. She continued this plan of treatment until the

17th, when, on visiting her, we found her complaining of want of rest at night from pains in her limbs. She is very weak. The pulse small; tongue slightly furred. There is mercurial fetor of the breath, and the gums are tumefied; no appetite. The sulphur and carbonate of magnesia to be discontinued; and she was ordered, compound decoction of sarsaparilla ℥ij; nitric acid diluted ♏xv: three times daily.

22. To use the cinnabar fumigation every night.

27. She is much better in her health. The vaginal discharge is less, and the condylomatous thickening of the left labium is diminishing, and the ulceration is healing, and covered with a dark dry scabious surface. She complains of great thirst, nausea, and syncope. To continue her medicines.

Dec. 6. She complains of great nervous trembling and syncope; pulse quick and fluttering. The condylomatous ulceration has still a warty character and appearance. Ammoniated tincture of valerian ʒj; camphor mixture ℥iss: twice daily. The sarsaparilla to be discontinued. Solution of chloride of soda; water; of each equal parts, to be applied to the ulcers. The cinnabar fumigation to be continued.

11. The valerian draught was changed to-day for the tincture of muriate of iron ♏xv. three times daily.

13. She is certainly better since taking the steel. The affection of the labia is better.

15. Her bowels being somewhat disordered, the cinnabar fumigation and the steel medicine were omitted, and she was ordered to take a rhubarb draught with tincture of opium.

20. She is still very low and nervous, with a great tendency to sickness, and pain on pressure over the epigastric region. She was therefore ordered to take the following powder at bed-time:—Mercury with chalk gr. ij; compound ipecacuanha powder gr. v; powdered rhubarb gr. iv; carbonate of soda gr. x.; and to have the abdomen treated with tepid fomentation.

22. To-day she was ordered compound tincture of bark ʒj; aromatic spirit of ammonia gtt. x: decoction of bark ʒx: three times a day, and to have fish-diet and ℥iij of port wine, and half a pint of beef tea. Her strength gradually increased under this plan of treatment; the condylomatous ulcerations and labial sores healed, and she left the hospital soon afterwards at the request of her friends.

Case 6.—Julia Healy, ætat. 21, under Mr. Walker. She has been on the town for two months, but her present complaints began four months since, with an intense itching of the pudendum, after which (two months since) a vaginal discharge came on.

She has had severe scalding on passing her urine for four months, and ulcerations of the labia for two months. She has also had ulcerations without the labial commissure for two weeks. Three months since she took copaiba for one week, and has had promiscuous intercourse to within the last two months. Her present symptoms are—a profuse thick yellow discharge from the vagina, with much scalding in passing her urine, and general increased vascularity of the labial surfaces. There is condylomatous ulceration of the nymphæ, with a superficial yellow ulcerated surface at the upper part of the margin of the left labium. There are several isolated condylomatous ulcers in the external commissure between the right labium and thigh; the throat presents no particular abnormal appearance. The general health is very good. The catamenial discharge commenced at sixteen, and has been absent for the last four months. She has had one child, and has aborted once. She has had no previous venereal disease. There is much thickening of the præputium chloridis. She was purged with calomel and senna, and the acetate of lead lotion was ordered to be applied to the parts.

June 23. To take a bath twice every week, and to continue the acetate of lead lotion.

26. The discharge from the vagina has not diminished, but there is less scalding in passing her urine, and less general vascularity and tenderness of the parts. The mouth is tender and the gums are sore; coppery taste. The black wash to be applied to the ulcerations, and the diluted solution of the acetate of lead to be used as an injection. Blue pill five grains twice daily.

July 3. She has not observed much vaginal discharge for the last five days, and the scalding is almost gone. The gums are sore and tumid, but there is little ptyalism. Medicines to be continued.

10. The condylomata have all gone. The gums are very tender, and at the back part of each side of the jaw they are ulcerated. She says that the vaginal discharge has returned. The pills to be continued, and the strength of the injection to be increased.

26. She is much better; the vaginal discharge is pale and small in quantity. The vestibulum is blue and vascular; ptyalism continues; the gums are florid, but not so much ulcerated. The same plan of treatment was persevered in until the 7th of August, when she was discharged cured.

Case 7.—Ellen Trevelyan, ætat. 20, admitted Nov. 20th, 1834, under the care of Mr. Walker, with condylomatous labium, gonorrhœa, and bubo. The history which she gives of her present complaints is very imperfect. She has been married ten months, and says that soon after her marriage she had scalding pains in voiding her urine, which has gone off and returned again several times since, but she has remarked no discharge until six weeks since. She has had a bubo and condylomatous affection for one month. She has had no connection for three months, and has only taken a little opening medicine. She has at present a very abundant thick yellow discharge from the vagina, with much scalding pain in passing her urine. There is enlargement and thickening of the left labium with superficial condylomatous ulceration along its inner margin, and there is one insulated condyloma at the inferior extremity of the right labium. The bubo is in the left groin, of the size of a walnut, and not at all painful; the inner surface of the throat is slightly vascular; the tonsils are enlarged, more particularly the right; general health good; tongue furred; bowels confined; catamenia regular. She has never been pregnant.

22. She was ordered to take the white mixture ℥iss. twice daily, and to use the saturnine lotion.

28. The vaginal discharge is nearly gone, and the scalding is much diminished. The labial inflammation remains the same. A few spots of lepra have appeared on various parts of the body within the last few days. To take three grains of calomel and three

grains of rhubarb at bed-time, and to use the bath twice a week; a blister to be applied over the bubo.

30. She says that the discharge from the vagina is quite stopped, but that some little scalding remains. She complains of great debility and lassitude, but does not advert to any particular local uneasiness. The tongue is clean, but the pulse is very small and frequent, and 132. The eruption on the skin is of the tubercular character, and does not partake of the characteristic appearance of lepra, there being a circular deposition on the cutis, though under a slightly desquamating surface. Those spots which first appeared on the skin are now so far advanced as to have left only a brown syphilitic stain on the skin. Some of the characteristic symptoms of the case bear now an apparent resemblance to a secondary eruption, succeeding to condylomata; although the ulceration at the inferior margin of the right labium does not partake of all the characters of condylomata. To continue her medicines.

Dec. 2. She is much better to-day; the tubercular eruption is thicker on the skin, partaking of a mixed character of lepra and tubercle, some patches having the distinctive characters of each, whilst others assume the appearance of an intermediate variety which has been named small psoriasis. There is one leprous scab with some surrounding redness under the right scapula. The case exhibits specimens of the three varieties of eruption, of simple stain on the skin, lepra, psoriasis, &c. On closely questioning her, we learnt that about three weeks since, she remembers having a sore on the lower extremity, which bled.

6. The eruption is increasing; there are light yellow scabs over the scalp around the roots of the hairs. There are several well-marked spots of lepra on the skin but fewer of psoriasis. Some of the glands of the neck are swelled; she is very weak and low, with some disposition to syncope. Many of the symptoms being now severely aggravated, and the decided syphilitic character of the disease not to be doubted, Mr. Walker determined to put her on a mercurial course. She was ordered to apply the black wash to the ulcers, and to rub in half a drachm of the mercurial ointment every night.

13. She is very much improved in health; the syncope and trembling subsided soon after she commenced taking the mercury; there is now insipient ptyalism, with a coppery taste in the mouth. The cuticular eruption has much subsided, and some of it is desquamating. The excoriation and ulceration of the labium have healed, and the thickened appearance of the parts has gone down. Blue pill five grains, extract of henbane two grains; to be taken in a pill twice daily.

20. Her improvement has been very rapid. The eruption over many parts of the body has quite gone, and in others there is only a scabby stain left; there is but little thickening of the labia left; she complains of some pain over the epigastric region soon after taking the pills; there is free salivation present; there is slight puffiness over the left cheek, and the gums behind are found to be slightly ulcerated. She was ordered blue pill four grains, extract of hemlock three grains; in a pill, twice daily. The black wash to be continued, and the alum gargle to be used to the mouth.

Jan. 5. The eruption is very nearly gone, and there is but very little remaining thickening of the left labium; the right labium has more of its natural feel and appearance: the discharge from the vagina is only small in quantity and temporary in its appearance; the tonsils are much diminished in size: the ptyalism still continues. A lotion of oxymuriate of mercury gr. j. to ℥j of water, to be used, and the injection to be persevered in. She continued the use of these remedies for some time, and was made an out-patient for a few weeks, when she discontinued her attendance at the hospital, being quite cured.

RE-VACCINATIONS IN THE ARMY OF THE WURTEMBURGIAN STATES IN 1833.

Professor Heim states in the *Wurtemb. Mediz. Correspondl.*, Nos. 10 and 11, that 1683 individuals were re-vaccinated with the following results: 34 in each 100 with success; 22 with modified results; 44 without any result. The patients were from twenty to thirty years of age. Of 577 who were re-vaccinated with perfectly successful results, 293 showed good cicatrices; 116 imperfect, and 168 presented no cicatrices at all. Of 366 re-vaccinated with imperfect results, 193 had good marks, 134 imperfect traces, and 39 no cicatrix at all. Finally, of 740 persons re-vaccinated without any result, 382 showed good, 222 imperfect, and 136 no cicatrices.

EMMENAGOGUE PROPERTIES OF ACONITUM.

In a paper by M. West of Strasbourg, in the August number of the *Archives Generales de Med.*, M. West states that aconitum is one of those remedies which, after having been praised beyond all measure, like many other new remedies, is now completely neglected in France. In Germany a few physicians still employ it in some cases, particularly in phthisis and rheumatismal affections. The author, while attending the clinique of the School of Medicine at Vienna, has seen a great number of experiments with this remedy. In phthisis its action never appeared very advantageous, but always inferior to that of the other narcotic substances. Its utility in cases of rheumatism seems more doubtful. However, amongst other patients at the school of Vienna, the author observed two females on whom the action of aconitum was very remarkable. One was a stout female, 27 years of age, affected with articular rheumatism of the left arm: her menses had been suppressed for three months in consequence of exposure to cold. Aconitum joined to antimony was administered for the rheumatic affection. The latter persisted without any change, but the menstrual discharge was quickly restored.

The second case was that of a female, 32 years of age, equally affected with rheumatism, whose catamenia had not appeared for five months: she took aconitum; the pains diminished slightly, and the menstruation was restored. These cases roused the author's attention, and induced him to make further experiments. He details three examples of successful application of the remedy to amenorrhœa. In the first, the disease had been established for twenty-two months; the patient was bled, and took the watery extract of aconitum for eight days previous to the supposed menstrual period. On the 5th day the pupils appeared dilated, with other slight indisposition; on the 8th day the menses reappeared, and have continued regular since that period.

In the second case, that of a weakly girl, the menses had been suppressed four and a half years, and replaced by a leucorrhœal discharge, more abundant at each period. The patient took thirty grains of the extract in twelve days, for suppression of the leucorrhœa, accompanied by pain and weight in the summit of the vagina; on the 10th day the pain had much diminished, and the white discharge had returned.

In the third case, the girl, 19 years of age, began to menstruate at the age of 16; after the lapse of a year the discharge was suddenly arrested in consequence of exposure to cold. After five months the patient experienced severe pain in the head and abdomen. These soon changed into true hysteria, the access of which came on at each menstrual period, and was excited by any moral emotion. The patient was seen a year after the suppression of her catamenia, and then exhibited the symptoms of chlorosis in the highest degree. She was ordered general and local baths, with thirty pills of the extract, to be taken eight days before the expected period. After the use of twenty grains the catamenia appeared, and were succeeded by a very fetid white

discharge; from this moment the access of hysteria disappeared, and the patient gradually recovered her health.

From these facts and several others noticed by the German writers, the author thinks the efficacy of aconitum in cases of amenorrhœa cannot be doubted; as to its mode of action, the author thinks it may determine the reappearance of the menses, not by any specific property (for there does not exist any absolute emmenagogue), but by calming an irritation of the uterus, by which the vessels furnishing the menstrual flux are prevented from performing their ordinary function.—*Lancet.*

CUTANEOUS TRANSPIRATION.

The following communication would have received earlier attention, but the copy was mislaid. The fact mentioned by Dr. O'Brien is curious and interesting, and is probably the effect of paralysis of the exhalent vessels of the skin. There is a case now in our mind in which the left side of the head, the left arm and shoulder even to the inferior angle of the scapula, never perspires even in the hottest weather. The gentleman who is the subject, when a boy, had an attack in the same parts of paralysis which supervened suddenly in consequence of a stream of cold air. He was in perfect health at the time, and suffered no inconvenience except a partial loss of the motive power of the muscles and the sensibility of the parts. The sensation is still less acute than in the other superior member; but the mobility is entirely restored. During exposure to cold damp weather or laboring under fever he is subject to a slight rheumatic affection of the left arm; and, as already observed, perspiration is never seen to moisten the skin.—Ass. Ed. Reg. & Lib.

Fort Towson, Choctaw Nation, April 30, 1835.

An anomaly in the process of *cutaneous transpiration* in the person of a gentleman, an acquaintance of mine, suggested itself to me some years since: it is of so extraordinary a character that its publication will, I am sure, not be considered out of place in the *Library and Register of Medical and Chirurgical Science.*

The party referred to assured me, that from his earliest recollection but *one side of his person perspired*, the right side of his scalp, face, neck, right arm, hand, side, thigh leg, and right foot, were frequently saturated, whilst their corresponding opposites retained a marked aridity. My intimacy with him after his maturity afforded me frequent opportunities of observing the phenomenon myself. The matter excreted, either in character or quantity, presented nothing unusual. His health was remarkably good, and his disposition exceedingly vivacious. His *mode of sweating* was often a subject of merriment with him, and never an object of the least concern.

Ever and truly yours,

LUCIUS O'BRIEN,

Assis. Surg. U.S. Army.

Dr. Hagan,
Editor of the Register and Library of Medical and Chirurgical Science.

THE ARTERIES IN INFLAMMATION.

To the Editor of the Lancet.

SIR: In the last number of the Medico-Chirurgical Review there is a notice of Professor Alison's paper on the vital properties of arteries, &c. I was glad to find on a first perusal, evidence as I thought that that journal had changed its opinion regarding the state of the vessels in an inflamed part, and of those leading to the part. On re-reading the article, however, I was surprised to find that there was no change in opinion, but that

the doctrine advocated by the Professor had always been considered by that journal as the true doctrine. In my own mind, from what I had gleaned from the pages of the Medico-Chirurgical Review, I had settled that it was opposed to the doctrine of debility of the vessels in inflamed parts; and I was sorry for it, because from its high repute and great circulation it became a powerful means of extending an error which has occasioned immeasurable mischief. Afraid that I had all along labored under a misconception of the sentiments of the journal, I have referred to former expressions of these sentiments, and will briefly transcribe from its pages some of the remarks on which rested my opinion of its creed.

At page 498 (Med. Chir. Review) you will find the following passage :—"Every one knew that vessels leading to inflamed parts were dilated; and it is nearly half a century ago that numerous experiments were made in Edinburgh (Lubbock, Allan, Wilson), to prove that the capillaries were *weakened* and dilated in inflammation, and consequently that the circulation was actually *slower* in inflamed than in sound parts. *We* have *always* considered this as the true doctrine of inflammation, and we are glad to see so able an advocate of the same in the person of Professor Alison."

Compare with the above the following, which you will find at page 411, Med. Chir. Review, October 1832 :—"The prevailing opinion at present appears to be that the capillary vessels are *weakened* and dilated, because by reason of that weakness, they are unable to resist the *ordinary* force of the heart and large vessels. This has *always* appeared to *us* a fallacious theory, although we are willing to allow that it is a specious one."

Of course the journal could not but admit of a dilated state of the vessels, but I am not aware that it ever until now admitted that the vessels in acute inflammation were in a *weakened* or debilitated condition; on the contrary, it has labored to upset the doctrine. "The treatment, then, of inflammation," the reviewer says, "should teach us something of its nature. It tells us this, that inflammation is not always the same, that acute inflammation is remedied by what empties and relaxes the large vessels and the small, that certain forms of chronic inflammation are best treated by what astringes and gives tone to them. Who does not know that phlegmonous inflammation is best treated by depletion, local or general, or both; and by the application of warmth and moisture, agents especially calculated to relax? We think this instance sufficient to upset the doctrine which makes inflammation consist in *debility* of vessels."—Med. Chir. Rev., October 1832, p. 414.

Is there not a change of opinion also as respects the velocity of the circulation in the inflamed part? We now learn from the journal that it has always considered this as the true doctrine of inflammation, viz., weakened and dilated capillaries, consequently circulation actually *slower* in inflamed than in sound parts. Witness how the reviewer expresses himself in October 1832, p. 412. "An inflamed part, if formerly white, becomes more or less red, and, if previously red, it is rendered redder. This arises, of course, from the greater quantity of blood which is in it. But we must not stop here; venous blood and arterial differ in color, and, for precisely the same reason, blood circulating slowly is less florid than blood circulating rapidly. In phlegmonous inflammation the color is vivid, not only because there is much arterial blood in the part, but also because that arterial blood is frequently renewed; in other words, because it is circulating with *rapidity*." I remain, Sir, authenticating my communication privately, your obedient servant,

O. B.

Oct. 7th 1835.

ACUTE BRONCHITIS.

Patrick Thornton, ætat. 30, was admitted into Matthew's ward, on Tuesday, the 21st of July. On the day of admission the following were the symptoms:—Countenance dusky; lips parched; the temperature of the surface augmented; no cuticular transudation; pulse 124, and compressible; tongue covered with a thick white fur and rather dry. He complains of a short cough attended by great pain, extending from the third to the sixth rib of the right side; he cannot effect a deep inspiration, and lies on his back; the alvine excretions are daily induced by medicine; anorexia and much nausea; the urine high-colored and scanty; no cephalic pain; perfect absence from abdominal tenderness; sleep considerably perturbed. A small quantity of blood was this morning ejected from the mouth; the expectoration has a frothy and a streaky aspect. He had enjoyed tolerably good health previous to last Friday, when after dinner he was suddenly seized with a pain in the chest, accompanied by difficult respiration; his skin then became hot and his bowels constricted. He applied to the parish surgeon, who prescribed some purgatives and a sinapism to the chest. Auscultation ascertains more air to enter the left lung than the right; crepitation mingled with sibilus and ronchus is evident in both lungs, anteriorly and posteriorly, but more especially in the left lung, as this admits of more permeation than the right. Ordered twenty leeches and an emetic; and calomel with James's powders every second hour.

22. Four ounces of buffy blood were taken from the arm by venesection, half an hour after which the ingress of air into the right lung was more free, the pulse quickened, and the respiration was easier. Cupping to four ounces beneath the right scapula; a blister; a grain of calomel every hour.

23. Thoracic pain entirely gone, and the patient in all respects better. Some sibilus still audible. The medicines to be discontinued.

24. Lips more livid; ronchus and sibilus equally diffused throughout both lungs; the left lung admits less air than yesterday; the right lung allows the entrance of less air in front than the left, in which situation the crepitation is mixed with ronchus and sibilus. Pulse more full and hard, computing 120. Take ℥vj of blood from the arm. Solution of the acetate of ammonia.

26. Better; but slight permeation through the right lung.

27. No pain on effecting a deep inspiration; pulse computes 120. Little air enters the left lung; the right permits of a liberal ingression.

28. An increased quantity of air permeates the left lung, accompanied by ronchus. Ordered the hydrargyrum cum creta.

29. Mending. A free passage of air through both lungs, together with ronchus. Administer the effervescent draught.

August 3d. Sibilus is still to be discerned in both lungs, especially at the inferior posterior portion. Patient says he feels quite well.

10. Crepitation is audible over the whole posterior division of the left lung during inspiration, and likewise beneath the clavicle; in which last situation he complains of pain on a deep inspiration, coughing, or lying on his side. The right lung is apparently quite healthy. No cough, expectoration, fever, or sweating.

11. The crepitation so diminished that none can now be detected. Discharged cured.

GASTRODYNIA TREATED WITH CREOSOTE.

Dr. Elliotson, in his last lecture, referred to the case of Catherine O'Keefe, aged 47, who was admitted into the hospital under his care on the 25th of August last. She stated

on her admission that she was married, and the mother of four children. She has not menstruated since Christmas. She began about nine years ago to experience severe spasmodic pains in the stomach, occurring in paroxysms of two or three hours duration, and at intervals of one or two days. These attacks occurred invariably a few hours after dinner. Blistering, bleeding, and the administration of mercury to salivation on several occasions, had produced no relief from her sufferings, though on two occasions she has been perfectly free from pain for six months, but this did not appear to be the result of medical treatment. About nine months since she began to experience pain, and a sensation of weight between the shoulders. She was also troubled with sour eructations, and a burning pain along the œsophagus. On her admission she was quite free from pain when the stomach was empty, but her sufferings commenced as soon as she had taken food. When the pain attacked her, she could only lie on her back, in which position, indeed, she always was most comfortable. The abdomen was very tender to the touch. The pain was always relieved by hot ingesta; her pulse was 60 and small; her tongue covered with white fur; the bowels regular; the urine clear; appetite variable; headache.

Dr. Elliotson thought the case a favorable one for the administration of creosote; he therefore ordered her to have two minims of that medicine every six hours, and placed her on middle diet.

27. She complains of pain in the left shoulder shooting down the inside of the arm to the elbow; there is also slight pain when pressure is applied, upwards from under the diaphragm. The pain in the stomach is undiminished.

29. The creosote was increased to-day to four minims; the pain in the shoulder and arm is relieved; that in the stomach remains the same; bowels regular; pulse 80.

Sept. 8. Since the last report the pain has occasionally been very severe; a day or two ago she was attacked in the following manner; her skin became very hot, succeeded by a profuse perspiration, which was followed by cold shiverings, which, after a short time, gave way to the natural temperature. To-day the pain in the stomach is more severe; she has scarcely any rest at night; her appetite is gone. Pulse 78. Dr. Elliotson considered that the medicine had not had a fair trial. It had been gradually increased to eight minim doses, and he now ordered ten minims to be taken every four hours.

17. The pain is less. She has noticed a considerable increase in the quantity of her urine since taking the medicine. She now takes fourteen minims every four hours, and oftener if the pain returns. She did not experience much benefit from the doses taken during the pain.

25. Has been improving since last report. She is now almost entirely free from pain, and the epigastrium is scarcely tender on pressure. Her tongue is clean, her appetite good, the pulse 70, and full.

Oct. 6. Her dose of creosote has been gradually increased to eighteen minims, with decidedly good effect. Indeed she is so much better as to be placed on the books as "cured," but there is occasionally a very slight pain in the stomach.

Dr. Elliotson remarked that this was a case which was not likely to be relieved by blistering, bleeding, or mercury. Aromatics, he observed, were generally employed with benefit, and pressure usually produced relief during the paroxysm. There was no doubt that the pain was exceedingly severe in these cases. He had never heard of a case in which an attack was fatal, but he thought such a result possible. As to the remedy administered, of course it would not be necessary to carry it to the extent in all cases to which it had been employed in the present instance.

Lock Hospital.

CASE OF GONORRHŒAL DISCHARGE, ACCOMPANIED WITH CONDYLOMA AND CONDYLOMATOUS ULCERATION.

CASE 1.—Amelia Doubleday, ætat. 22, was admitted March 13th, under the care of Mr. Walker. She has been married five years, and has two children. She has had her present complaints for three months, which began with scalding, and were followed in the course of a week by discharge and sores, which have lasted for three weeks. About six weeks since she took some medicine, supposed to be balsam of copaiva, three times a day for three weeks, which did her no good.

She has now a profuse thin yellow discharge from the vagina, there is a superficial gray sloughy surface of ulceration covering the entire perineum, the opposed surfaces of the nates, the integuments, labia, &c., particularly at the superior commissure and in the commissure between the nymphæ and labia. The nymphæ are much enlarged, the inner surface of the left is excoriated. Her health has been very good, and she has been pregnant three months. She was ordered to take a senna draught, and to have the sloughy ulcerated parts washed with black lotion.

15. Washed sulphur ʒj; carbonate of magnesia ϑj; to be taken twice a day.

19. There is much less discharge, and the greater surface of the ulceration has healed.

21. She complains of headache to-day; skin hot, and bowels confined. Senna draught.

22. Black lotion and linseed poultice to the ulcerated parts.

23. Vespere. The abdomen has been very much enlarged to-day; there is great abdominal tenderness on pressure, which appears to be dependent upon hysteria. The tongue and pulse are natural. To take the chalk and catechu mixture and a rhubarb and magnesia draught, with ten drops of tincture of opium, early to-morrow morning. Omit the washed sulphur.

24. The draught has given her great relief, the bowels not having been painfully acted upon; there is much tenderness of the abdomen, but no pain. The tongue is furred, there is headache and thirst, and the pulse is natural.

She now took calomel and opium, which she continued with much benefit for some time. She then took Plummer's pill and sarsaparilla, until

May 8, when "the report in the case book" states her to be much improved, and that the Plummer's pill was discontinued on account of headache. Some hemorrhoidal tumors which have troubled her have completely disappeared under the confection of black pepper.

21. The gums are tumid and vascular and very tender; there is also a white sloughy spot of ulceration on the anterior part of each tonsil. This was ordered to be touched by the nitrate of silver.

29. The throat is quite well. The ulceration over the labia, perineum, &c., is quite healed.

From this period up to the time of her leaving the hospital "cured," no event occurred to retard her perfect recovery. She was delivered of a male child the day after our last date. The child had a slight erysipelatous blush over the right side of the neck and ear, which was removed by slight purgation with castor oil, and on the 24th June she went out quite well.

CASE 2.—Sarah Blake, ætat. 19, admitted March 27, under Mr. Walker. Her present symptoms came on about nine weeks since, with gonorrhœal discharge, scalding, &c.

She has had condylomata for a period of five weeks. She has had only one connexion, nine weeks since. There is at present a profuse, thick, dark, yellow discharge from the vagina, with excoriation of the orifice. The condylomata are situated on the outside of each labium, between it and the thigh; there are some also on the perineum and nodes; some are in an incipient, and others in a full state of ulceration. The right tonsil of the throat is enlarged, and covered by a slight superficial ulceration. Her general health is good, the bowels are confined. The catamenia are regular, and commenced at fourteen years. A senna draught to be taken immediately, and a diluted solution of the acetate of lead to be applied to the parts ulcerated.

April 3. The vaginal discharge is less in quantity, but there is much excoriation of parts, with some ulceration on the right side of the orifice of the vagina. The right tonsil is less swollen; the ulceration covering it is healed; the bowels are quite regular. Powdered cubebs ʒij four times daily.

12. The discharge has rather increased in quantity; the ulcerated surface has healed, but there is still some excoriation around the meatus urinarius. The right tonsil is looking better, and has a more healthy appearance; there is some vascularity about the fauces. The medicines were ordered to be continued.

17. Catamenia are present; the medicines are ordered to be intermitted; in other respects progressing favorably.

24. The vaginal discharge has been more profuse since the cubebs has been omitted, and she complains to-day of some headache. There is intertrigo in the commissure behind each labium, with considerable vascularity and excoriations of the vagina. The powdered cubebs to be resumed in ʒij doses three times daily. The vagina to be injected with a diluted solution of the acetate of lead in the proportion of gr. iv to ʒj.

31. The discharge has very much improved; there is still some vascularity, but less excoriation of the vagina. The powdered cubebs was ordered to be omitted, and an infusion of cubebs used instead, of ʒj to 0ij of boiling water, as an injection.

May 8. The discharge has become much worse since the internal use of the cubebs has been discontinued. The bowels are confined; the tonsils have nearly regained their natural size.

10. The symptoms remaining much the same, she was ordered the following vaginal injection:—Muriate of ammonia ʒiij; water 0j: to be used frequently.

15. The injection has been of great service, the discharge has nearly ceased, and what remains is of a pale-yellow color.

21. The discharge has remained stationary for a few days. She complains of headache and loss of appetite. The injection to be increased in the proportion of ʒss to 0j. Calomel and antimonial powder, of each two grains, to be taken to-night at bed-time.

29. On examining the vestibulum there is some slight vascularity, but all trace of discharge is gone. She was discharged cured.

Case 3.—Bathia Mitchell, ætat. 24, admitted on the same day with the above patient. Her complaints commenced with discharge and scalding, which she has had for four months. She has had condylomatous ulceration for three months. Her throat has never been affected; there is at present an extensive condylomatous ulceration occupying the labia, which are thick, hard, and swollen; this extends also to the inside of the thighs, the perineum and nates, going behind the anus; there is a profuse thick yellow discharge from the vagina; the right tonsil is enlarged and slightly ulcerated; the health is quite good; the bowels are confined; the catamenial discharge, which commenced at sixteen,

is regular; the same preliminary treatment of a purging senna draught and the black lotion to the ulcerated parts was adopted, and on the

29th, she began using the oxymuriate of mercury lotion in the proportion of gr. ss to ℥j, and took washed sulphur ʒj twice daily.

April 1. She was ordered to take the white mixture ℥iss * every night at bedtime, and to go on with her other internal and external medicines.

3. The condylomata are much better; many of the ulcerations have healed; the ulcers occurred in the centre of a condylomatous swelling, and were different from the common condylomatous ulceration, as being attended with a loss of substance, and presenting a depressed surface. The vaginal discharge is white in color and small in quantity. The ulceration on the tonsil is healed; on the upper part there is seen a white elevation, having the appearance, but not the entire character, of a pustule; the bowels are regular. She is to continue the use of all her medicines.

8. The tonsillar ulceration has healed, the white pustular appearance upon it resembles a warty excrescence.

12. The condylomata are becoming flat, thickened, and have a bluish appearance; the vaginal discharge is diminishing; the white body on the tonsil is irregular upon its surface and hard to the touch.

19. The condylomata are nearly all gone, leaving behind some few spots of discoloration. To continue her medicines.

21. The wart on the tonsil presents the same appearance; it is situated on the upper and inner part of the right tonsil, which is much enlarged, but not increased in vascularity; the left tonsil is also slightly increased in size.

24. She is convalescent, and is to leave the hospital.

She was re-admitted again with many of her old symptoms on Oct. 8th. She had been on the town for the last three months. She has now an abundant thick yellow vaginal discharge, which has lasted three weeks, and some condylomatous ulcerations for two weeks; the orifice of the vagina is vascular, and there is slight swelling and tumefaction of the left labium; there are numerous small circular condylomata, aggregated, but not confluent, over the region of the perineum, and on the inside of both nates; there is superficial ulceration, approaching to excoriation, of the skin around. The throat is preternaturally vascular, but she does not complain of any difficulty in deglutition. The right tonsil is enlarged, and bears the same warty growth (but smaller in size) alluded to when she was formerly in the hospital. Her general health is good, the catamenia are regular, and she has never been pregnant. She was purged with calomel and rhubarb, and senna draught, and the decoction of tormentilla bark was ordered to be used as an internal injection and an external application. There was, however, no tormentilla bark in the hospital, and the saturnine lotion was ordered instead. She proceeded with this for some time, and on going round the wards one morning we learned from the nurse that she had taken to her legs and was off.

Case 4.—Jane Glover, ætat. 18, admitted with the two preceding cases under the care of the same surgeon, Mr. Walker. She has been on the town four months; her present complaints began with a discharge two weeks since; scalding of the urine, with swollen labium and sore, followed in a week afterwards. There is now a profuse gonorrhœal discharge from the vagina, with much scalding in micturition. There is a patch of sloughy condylomatous ulceration in the commissure between the right labium and thigh, with

* The White Mixture consists of carbonate of magnesia, sulphate of magnesia, and peppermint-water.

much swelling and redness of the immediately contiguous parts extending to the perineum and nates. Her general health is good, but the bowels are much confined; both tonsils are enlarged, more particularly the right one, around which there is some inflammation and ulceration; the catamenial discharge has been absent three months. Black wash was ordered to be applied to the ulcers, and the acetate of lead lotion to be used as an injection.

April 3. The vaginal discharge is less, and is white in appearance; the scalding in micturition is gone; the condylomatous ulcerations are nearly healed; the inflammation of the labium has subsided, leaving behind much thickening and induration of parts; the bowels have been regulated by the hospital senna draught; on the surface of each tonsil there is a superficial spot of yellow ulceration; there is an ulcer of an oblong form on the inside of the left labium, it is red and granular, and the edges are slightly elevated. This has formed since her admission into the hospital. Mr. Walker ordered the black wash to be applied to it.

12. There is to-day less thickening and induration of the labium. The condylomata have been healed some days, but have left behind them a blue thickened appearance of the skin. Both tonsils are enlarged and swollen, and covered with superficial white ulcerated surfaces; the ulcer on the labium is less inflamed, but still florid.

19. The tonsillar and labial ulcerations present much the same appearance as at the last report. The red lotion was ordered to be applied to them.

24. The inner labial ulcer is much in the same state; the tonsils (particularly the right one) are larger; the general ulcerative surface is healing; some small open patches are still left.

30. The ulcers are looking better, the margins are tumefied. The nitrate of silver was ordered to be applied to them.

May 8. The inner labial ulcer is nearly healed; there is much vascularity of the vestibulum; the thickening surface left by the condylomata is nearly gone. The right tonsil is much enlarged, and bears some slight ulcerative marks upon it. The yellow vaginal discharge continues. The solution of the acetate of lead gr. vi to ℥j, to be used as a vaginal injection. She continued to lose many of her bad symptoms, and the report on the

29th was, that the white ulcerative appearance on each tonsil was gone, but that there was much pain on deglutition. The labial ulcer is improving under the occasional use of the nitrate of silver. The catamenial discharge has not appeared for five months. To continue the use of her medicines.

June 4. The tonsils have now lost all trace of ulceration, and present their normal appearance. The vaginal ulceration has healed, and the surface (with the exception of an increased vascularity) presents a healthy appearance. Her medicines were ordered to be discontinued, and on the following day she was discharged cured.

OMENTAL HERNIA.

In a clinical lecture on 31st July, involving the cases of some patients under his care in the hospital, the surgeon, Mr. Lawrence, noticed that of Daniel Bostell, ætat. 34, who was admitted on the 28th of this month, and who had been the subject of omental hernia for a period of thirty years, continually rendering him liable, on any unusual exertion, to the protrusion of a knuckle of intestine; which, however, had heretofore been reduced with an ordinary degree of facility. The intestine, in the present instance, had suffered strangulation, and the surgeon immediately decided on an operation, which was accordingly performed at half past seven o'clock on the

evening of his admission. On laying open the hernial sac, a large quantity of thickened omentum was exposed, a portion of which the surgeon deemed it prudent to excise. After the operation the patient was placed in bed, and the lapse of three hours was allowed to take place to give time for the action of the purgative which had been previously administered, before any fresh measures were resorted to for exciting the peristaltic action of the intestines. All the collateral circumstances have a favorable aspect, and the patient is making rapid advances towards health.

INJURY TO THE EYE FROM QUICKLIME.

The lecturer next adverted to a little boy, who was admitted into Rahere's ward on the 27th of July, under the following circumstances. The child, whose name is William Nevill, stated, that while at play, having excited the irascibility of a workman engaged in the repairs of some building, the latter threw in the child's face a quantity of quick-lime, some particles of which insinuated themselves between the palpebræ, producing a peculiar effect on the surface of the cornea, which evidenced an appearance of leucoma. The vision in this case was not totally annihilated; but if the action (which the lecturer considered to be a chemical one) continued to progress, the inevitable consequence would be a complete alteration in the structure of the cornea, producing irrecoverable blindness in that eye. But in the case under detail the cornea was merely rendered semi-opaque in the superficies of its entire extent, admitting of so much vision as was required to discern any large object, such as a finger or a pencil-case. Little or no pain was produced by the malicious act; and a somewhat favorable result was augured, inasmuch as the lecturer imagined that the superficial lamina of the cornea would exfoliate, and leave the eye almost in its pristine state of health. The treatment consisted simply in the application of twelve leeches to the eye, at two distinct periods, and continual ablution with tepid water.

North London Hospital.

CHRONIC PHAGEDENA OF THE PENIS.

Joseph Johnson, aged 40, was admitted July 11th, under the care of Mr. Liston. About three months ago he had a chancre on the prepuce, which he neglected for some time, but as it began to extend and enlarge very much, he became alarmed and applied to a surgeon, who ordered frictions of mercurial ointment to the thighs, and gave him "a number of pills." The sore, however, still continued to extend, and phymosis supervened, which was relieved in the usual manner, by division. As he did not improve he applied to another surgeon, who persevered in the use of the mercury. At this time a pimple made its appearance on his thigh, and afterwards a succession of conical scabs formed over different parts of the body, which on separating left deep unhealthy ulcers. At the time the prepuce was divided, there was a small opening on the dorsum at its inferior part, through which small quantities of matter, secreted by the ulcers on the glans and prepuce, escaped. When the prepuce was drawn back, its inner surface was found in a state of unhealthy ulceration. A considerable part of the glans had also been destroyed by ulcers of the same description. For several days after the division of the prepuce there appeared to be a considerable improvement in the character of the ulcers; the mercury was still continued internally; poultices and fomentations were carefully applied, and the incisions appeared to be healing rapidly. A slow phagedenic ulceration then supervened, and in about three weeks the whole prepuce, as high up as the opening for-

merly mentioned, had been destroyed. The greater part of the glans had also been lost. For the last week he has been taking the hydriodate of potash; under the use of whch the ulcers on the body improved rapidly, while those on the penis continued to extend.

The following was the condition of the parts on his admission. The glans penis was completely destroyed by the ulceration, the surface of the sore was irregular and unhealthy, and there appeared to be no attempt at granulation. The edges of the sore were sharp, as though they had been cut. The surrounding integuments were slightly swollen, and of a deep-red color, and on different parts of the body there were numerous small superficial healthy ulcers. His health was much impaired, and he was in a state of great emaciation.

The surface of the sore was touched freely with the nitric acid, and the warm-water dressing was afterwards applied.

July 17. Parts of the sore seem to have a slight disposition to heal. The warm-water dressing to be continued, and half a pint of the compound decoction of sarsaparilla to be given three times a day.

Aug. 1. He has been gradually improving since the last report, the ulcer being now under the process of cicatrization.

Mr. Liston, in making some remarks on this case, begged the pupils to observe, that the symptoms and condition of the patient had progressively gone on from bad to worse, and that this happened while constitutional treatment had been pushed very far, the system having been brought and kept under the influence of mercury for a long period. This, he said, was a form of venereal disease which did not yield to mercury, and was generally rather aggravated by mercury in most of its stages. There had been a marked improvement in the aspect of the sore after the division of the prepuce, and this was attributable to the loss of blood. A rapid improvement often took place after spontaneous hemorrhage from such sores. Had antiphlogistic treatment been adopted, and the diseased surface been destroyed in the first instance, in all probability the patient would not now have had to lament over his distressing situation. The progress of the ulceration should now be averted by the use of a powerful escharotic, and means should be taken to improve the patient's general health, and free him as speedily as possible of the effects of the disease and the remedies. The patient had benefited much under iodine, which might be resumed after the skin was brought into a more healthy state by the use of the warm-bath and the exhibition of sarsaparilla.

ON THE ORIGIN AND NATURE OF HYSTERIA.

By John Roberton, Esq., Surgeon to the Manchester Lying-in hospital.

The distinguishing, I may say the essential feature of the constitution liable to hysteria, is a peculiar irritability of the nervous system, existing throughout the duration of life, and often manifesting itself in a degree greater than the power to resist particular hurtful impressions. To this latter circumstance it is owing that various causes, mental as well as physical, produce certain effects (already characterized and partially enumerated) of the nature of disease—effects which, in the aggregate, have received the name of hysteria. The inordinate and peculiar irritability I have spoken of, probably in all cases originates in congenital defect in the nervous structure, although it may doubtless often afterwards be aggravated by a great variety of circumstances, the chief of which are derangement of the menstrual function—an idle, sedentary, luxurious manner of living, and the cultivation of the emotions and passions, to the neglect of the understanding. I have said that there is probably always congenital defect of the nervous system; and the same

observation may perhaps with some reason be extended to other systems of organs and parts, more especially to the digestive and assimilative organs; for although, in many instances, the hysteric patient is robust and vigorous, much more generally she is of slender, delicate make, capricious appetite, feeble digestion, and exceedingly variable bowels.

This opinion of the nature of hysteria I am desirous to state with as much clearness as possible, not simply because I think it the most tenable, but rather because of its leading (as I hope) to a just and comprehensive view of the nature of hysteria as a disease. That the multiform symptoms included under this vague name, which yet may be traced to a common parentage, are often (daily, I might say,) mistaken for inflammatory and other organic diseases, and treated as such, to the immediate aggravation of the symptoms, and the lasting injury of the patient, is well known. It will therefore be useful to have pointed out, however imperfectly, the more uniform and abiding features of the hysteric constitution, that being caught by the eye of the attentive practitioner, he may thereby steer his course with some degree of assurance, where not a few have unhappily foundered.

A question naturally arises, how are we to distinguish hysteria from hypochondriasis? This often controverted point I have not space to discuss. The two may exist together in the same person, although I think that they are unquestionably different diseases. Hypochondriasis would seem to be an affection of the digestive organs modified by temperament; the prominent symptoms referable to the nervous system being timidity, continual dread of impending evils, with excessive attention to every bodily sensation, as though it indicated some latent but fatal disease. The complaint comes on gradually, increases progressively, and sometimes ends in structural disease of the abdominal viscera, of the brain, or other internal organs. Hysteria, on the contrary, comes on suddenly, with spasmodic affection of some part of the *primæ viæ*, and may as suddenly cease. True there is often timidity, and always a crowd of distressing sensations, but not necessarily, nor even ordinarily, despondency and valetudinarianism; nor, unless the exciting causes are very long and constantly applied, is there any tendency in hysteria to become gradually worse; and the ultimate effects are rarely, if ever, known to be structural disease. Upon this topic Cullen has the following admirable remarks:—"Purple is a compound of red and blue, and there are some purples in which it is difficult to say whether the red or the blue prevails; but in many other cases we distinguish them; and whether we can distinguish in all cases or not, this never embarrasses us in distinguishing between blue and red when these colors are totally separated. So these diseases may also be mixed in certain degrees; but that does not prevent them from being truly, and very often totally, distinct and distinguishable diseases; and after considering both the one and the other, I believe the difficulty of distinguishing them will seldom occur."

The exciting causes of hysteria admit of division into three classes. 1st. Such as immediately affect the mind; as surprise, terror, anger, grief. 2d. Such as plainly effect the body; long continued pain, hurtful ingesta, great fatigue, sudden atmospheric change from dry to humid, the outstriking of eruptive complaints, disordered menstruation, &c. 3d. Obscure changes in the bodily health, that are rather inferred than actually observed.

There can be no question that hysteria readily occurs in the predisposed, whenever the menstrual function is deranged, suppressed, or performed with pain. This generally-acknowledged fact I fully admit, and regard it as the principal reason why hysteria is chiefly confined to the female sex. The following cases, however, illus-

trate the effects of certain exciting causes, where the menstrual function was in no respect faulty.

Mrs. S——, a widow, aged 56, lusty, usually in tolerable health, and who had ceased menstruating about seven years. I was hastily summoned to visit her, on account of what was thought an alarming seizure, when I found her in bed, cold, pallid, torpid; complaining of pain at the pit of the stomach, and about the umbilicus. This attack had been ushered in, a couple of hours before, by a violent paroxysm of hysteric crying and raving. The illness she ascribed to what she had eaten at dinner; but an attendant hinted to me that it was owing, not to what she had eaten, but to a piece of very distressing intelligence she had received, affecting the moral character of an old and valued housekeeper.

Miss M., aged 25, well formed, and healthy. I found her with a dull look, cold surface, feeble pulse; complaining of an intense head-ache, and manifestly affected with globus. There had been a succession of convulsive attacks. On careful inquiry, the menses, I found, were regular, and in every respect natural. I found also that the exciting cause was a severe and prolonged tooth-ache, which had deprived her of rest for several nights.

Mrs. H., aged 35, stout, plethoric, but very vigorous; the mother of a number of children. When I saw her she was sitting up in bed, the angles of her mouth strangely relaxed, the aspect dull and stupified, and having almost entire loss of the power of articulation. A little before my visit she had had a violent fit of laughter, and, on making inquiry, I learnt that this was not the first attack of the kind. As to the menses, they were in every respect regular. A general herpetic eruption, which was just becoming visible, that soon spread over large portions of the surface of the body, producing great irritation, was evidently the exciting cause.

Miss D., aged 28, robust in figure, but of feeble stomach and variable health. When I saw her, she was lying on the floor of a Sunday-school, whither she had gone after dinner, in what her friends around called a *shake—i. e.* she was screaming, and frightfully convulsed in the trunk and extremities but not the face; these fits alternating with periods of calm. She had for years been a frequent sufferer from hysteric attacks; on the present occasion the exciting cause, in the opinion of her sister, who was in attendance, was a heavy dinner of roasted pork, which she had taken about half an hour before the commencement of the paroxysm.

Mrs. S., aged 24, twelve months married, without family. On entering the room, I saw a slim, elegantly formed lady, lying on a sofa, in moderate convulsions. The contractions were chiefly in the lower and upper extremities; her thin but fine features being very slightly agitated. After a little, she was still, and faintly answered my queries; but the convulsions soon returned. The pulse was hurried and languid, and the surface cold. On particular inquiry, I was assured that the catamenia were, in every respect, natural and regular. She had been subject to such attacks for a number of years, had an affectionate husband, all the comforts of life, and knew of no cause whatever for the fits. Occasionally she would be quite well for months, and then have fits she knew not why.

An attendant of the hysteric diathesis, which I mention by the way, as being too important to be altogether overlooked, is a remarkable liability to abortion. A considerable proportion of such as miscarry in the early months of pregnancy are of this constitution; and few child-bearing women, highly predisposed to hysteria, escape repeated abortions. I have said abortion in the early months, because in the later months miscarriage may occur from various local causes, as the death of the fœtus, or a slip in walking, irrespective of the constitution of the mother.

It is not my intention, as, indeed, it would be out of place, to enter on a fuller consideration of the ordinary forms of hysteria, familiar to most practitioners; but there is one form less known, and far from being well illustrated in any treatise I am acquainted with —I mean the voluntary hysteria. Dr. Cullen, it is true, expresses his belief that the hysteric affection can be, and often is, renewed at pleasure; and he has attempted, with much ingenuity, to explain how this happens, remarking that the occurrence is doubted, rather because it is difficult to explain how involuntary motions should thus be raised, than from any weakness in the evidence for the fact. "Merely by recalling to my imagination," says he, "any piece of indiscretion which I thought I had committed, I have in my chamber and alone, often blushed as warmly as when the indiscretion was committed. Many laugh by themselves in the same way; and still more can, by the imagination of mournful scenes, induce a flow of tears. None of these, however, are voluntary motions; but they serve to shew, that by teaching, as it were, the imagination the ideas that can excite such and such emotions and involuntary actions, we can in a manner render such emotions and actions subservient to the will." He then proceeds to relate a case to exemplify this reasoning:—"I knew a lady who was subject to violent hysterics, for which, for a long time, I could assign no reason, till at length, on mentioning by chance the name of a man from whom she had received the grossest injuries, she fell into a severe paroxysm; and then it appeared that they always came on when she thought of that person."

To me neither the reasoning nor the illustration appears conclusive. The instance of a person blushing in secret, on happening to recal a particular train of thought, is an example of emotion, which never becomes subservient to the will, as Dr. Cullen would have discovered had he retired into his chamber on purpose to make the experiment. The predetermined recollection of that indiscretion, the accidental recurrence of which, in the mind, had always hitherto called up a blush, would now, we may safely predict, have been followed by no such effect,—emotions of whatever kind, and however often renewed being in their very nature, I apprehend, absolutely involuntary. The hysteric fits, too, of the lady, were as plainly involuntary. Had she, at the request of her physician, set herself to think of the obnoxious person, the very idea of whom excited fits, is it likely that by such a pre-arranged effort of the imagination she would have fallen into a paroxysm? I think not. The violent emotion hitherto excited by this idea, when obtruded on the mind unbidden, would now have given place to some mental state of a totally different kind—probably to curiosity. Another of Cullen's illustrations—the power of shedding tears at will—is very much more to his purpose; not, however, when it takes place as the effect of recalling to the memory of some mournful scene, as he has stated, for then it is in its nature involuntary; but when it occurs as the effect of voluntary effort, which there is reason to believe many persons possess, almost at any time, the ability to make—a power in its nature similar to what is obtained over several of the other physical signs of emotion, by those dramatic actors who possess the true genius of their difficult art. The distinction I have here drawn ought not to be lost sight of. The power of assuming a doleful look, accompanied by a flow of tears, is one phenomenon; and the flow of tears, as the sign of a sorrowful emotion, is another and different phenomenon.

It is not easy to say what the power I allude to really is—the power of acting at will "the rueful look and gushing tear," nor do I think that every one is capable of acquiring it. The act itself, I imagine, is always preceded by a momentary general sensation or thrill, the faculty of causing which at pleasure, is the nearest approach that I can conceive to the power of falling at will into a true hysteric paroxysm. Perhaps the latter may not require a greater or very different kind of

mental effort for its production than is required in the production of the former, for it is easy to believe that when once the earliest feeling which denotes the accession of the hysteric paroxysm, and is its antecedent, has taken place, the remaining train of symptoms will follow, not voluntarily but necessarily, according to the ordinary law of sequence, or, as it is commonly called, of morbid association. The remarkable case I shall now relate may help to exemplify this observation.

During my residence in Warrington, late one evening, August 22d, 1821, I was taken to visit a person in the workhouse, who had been discovered in a field adjoining the town, apparently dying, in consequence of violation and other injury inflicted on her, as she alleged, by two ruffians. I found a slender young woman, having a gipsy cast of countenance, lying on a bed, in what appeared a well-marked paroxysm of spasmodic hysteria. On coming out of the fit, she complained, in a feeble voice, of great pain in the limbs, in the throat, and on the left side of the abdomen. Applying her hand to the latter part, she screamed and relapsed into a fit. Her look was quite ghastly, and expressive of great exhaustion. The surface of the body (notwithstanding the state of the weather, which was extremely sultry) was cold as a corpse; and the pulse was under sixty and extremely feeble. An attempt to swallow a little spirit and water excited apparently a near approach to suffocation, during which the fluid was forcibly ejected from the mouth. She complained of pain in the pudenda; hinted that she was flooding, and that all her sufferings were owing to personal violence; but on the plea (and it seemed very reasonable) of great exhaustion, she declined for the night a more specific examination. The same description of fits continued for three days and nights. On the evening of the 25th, that is, three days after her admission, she fell into a most violent paroxysm; and was thought by myself and others to be actually dying. Two men in the course of the day had been apprehended on suspicion of perpetrating the dreadful outrage she was supposed to have suffered; and on being confronted with her, she instantly identified one of them as her violator, who, in consequence, was sent to jail. Her tale however, it now began to appear, did not hang well together. It was true, marks of violence were found on her person —on the arms, and particularly on the left side of the abdomen. On the inner surface of the labia pudendi, also, were two slight wounds, such as might have been inflicted by the finger or thumb nail: but not to spin my narrative too long, by the most convincing circumstantial evidence, and ultimately by her own confession, her story was discovered to be fiction, invented for the purpose of exciting charity, and that all her injuries were self-inflicted. She had fallen down in a fit in a field adjoining the public road, near the hall of a widow lady, noted for benevolence, where she was found, and probably, contrary to her expectation, thence conveyed to the workhouse. In due time, Miss Mary Ann Sherratt, for that was the heroine's name, had to shift her quarters from the workhouse to Bridewell, where from the indulgent hands of her medical friends, she passed into those of the lawyers, and found herself a match even for the latter, for whenever they began to press her hard with unpleasant questions, she treated them with an hysteric paroxysm; not a sham fit, but one having every feature of actual hysteria. During these fits, I have repeatedly found the pupil immobile on the near approach of a lighted candle; and the effects on the surface of the body, the pulse and the countenance, were exactly such as warranted me in pronouncing the paroxysms real.

From Warrington Miss Sherratt was removed to Kirkdale, tried for imposture, convicted and imprisoned. On the expiration of her term—on the very day of her release, I believe, (I speak without possessing exact information) she wandered into Cheshire, and there fell not into a fit, but into labor. This time she chose her opportunity better, for great commiseration was excited, and she had presents of various kinds showered on her.

An accoucheur was likewise summoned, whose obstetric examination she contrived to parry throughout the ensuing night; but in the morning before she could escape, it was discovered that she was not in labor, nor to all appearance, even pregnant. Again was she conveyed to jail at Knutsford, tried and punished. A number of years elapsed before I heard further tidings of this singular person. However, in glancing over the columns of a London paper, I chanced to light on a notice to this effect:—That a young woman of the name of Sherratt, who some years ago played a variety of strange tricks at Warrington, had absconded from the penitentiary, carrying with her property to the value, if I rightly remember, of 40*l*. It appears that before finding shelter in the penitentiary, she had contrived to fall into a fit in the street so opportunely as to attract the notice of Mr. Alderman Wood, who took compassion on her, and had the influence to obtain her admission where I have stated. There Miss Sherratt soon became a great favorite with the ladies who superintended the institution; and having a wonderful turn for repeating from memory portions of scripture, (a turn I well recollect her possessing when under my care,) she was looked on, up to the moment of her elopement, as a most exemplary and hopeful penitent. More of her story I do not know. I have never, however, seen reason to change the opinion I originally formed, that the fits were truly hysteric; and that she could fall into a paroxysm by a mere act of the will.

If not intermediate between involuntary and voluntary hysteria, yet differing a shade from the ordinary character of the former, is hysteria from imitation—a variety characterized by the fit supervening on the patient witnessing an hysteric paroxysm in another. We should, a priori, imagine that the predisposition must be strongly marked indeed, in those who fall into hysterics from this cause. But it is doubtful if such is the case; since sometimes on one in a ward falling into a fit, the whole or greater part of the inmates immediately follow the example. A case of dysphagia in a female in Guy's Hospital, Dr. Bright informs us, required the employment of the probang; but no sooner was the instrument introduced than the patient fell into hysterics, "which was followed immediately by hysteria in several females in the ward." Instances of this description are often met with, and curiously illustrate the wonderful physical influence which one human being, under particular circumstances, exercises on another. Nevertheless, it would seem to have been reserved for the modern advocates of animal magnetism to perfect us in this kind of lore, of which kings, with their curative touch, were the first great professors; while the credulity of the former has taught us that the world may increase faster in knowledge than in wisdom.

The power of throwing off an hysteric seizure, by a voluntary effort, is a remarkable circumstance, and by no means rare. Hysteric patients, in hospitals, are said to recover more speedily under the care of certain nurses than under others; owing solely to greater personal control. The following case is instructive. Happening to be in attendance on a lady, distressingly affected with hysteric sighing, I had occasion to converse with another lady, a particular friend of the patient, respecting the somewhat singular nature of the complaint; when she addressed me in these or similar words. "Miss A. might, if she would, do much by her own effort for the cure of this sighing. When I was very young I exposed myself to a silly disappointment, and was taken with the same kind of sobbing; the moment my mother, who possessed both sense and firmness, perceived the slightest signs of an attack, she made me get my bonnet, and drove me, forthwith, out of the house, into the street. This acted more effectually than Miss A.'s large doses of æther; for the fear of being noticed sighing in the street, effectually, for the time, overcame the *tendency*. After a while my mother's perseverance and my own efforts wrought a *complete* cure." In such instances as this, the paroxysm probably originates in no act or even

consent of the will, and yet steals on with a force so gentle as admits of its being effectually resisted, if the patient is determined, or compelled, to make the attempt.

The medical treatment of hysteria, having nothing new to offer, it is not my intention even so much as to touch upon; and I hasten to conclude by a brief enumeration of those points which it has been my wish to bring especially under notice:—

1st. Hysteria manifests itself in various forms, and several of these again split into many varieties; illustrating the remark of Sydenham, that in diversity of feature this disease may be compared to the shapes of Proteus, and the colors of the cameleon. Hence it does not easily admit of definition; or rather, to every definition there must be exceptions so numerous as to render it altogether worthless for practical purposes.

2nd. It is an error to regard hysteria as exclusively a symptom of uterine derangement or of spinal irritation; or an affection of the brain; or as being solely a disease of females.

3rd. The peculiar nature of the causes, as well as the symptoms of hysteria, in all its forms and varieties, points to the nervous system as the primary seat of the disease; and it would appear, further, that not always the whole of that system is affected, but rather, sometimes, a particular part thereof—an inference illustrated and strengthened by sound analogy.

4th. We have reason to believe that there is as absolutely an hysteric constitution, or congenital predisposition to hysteria, as that there is a scrofulous constitution, or congenital predisposition to scrofula; and consequently that none are liable to hysteria but only such as possess this constitution.

5th. The hysteric constitution is characterized by irritability sui generis of the nervous system as a whole, or sometimes more particularly as connected with certain organs; and that although this condition cannot be originated by modes of living, and other external circumstances, it may be greatly aggravated by them.

6th. There is nothing whatever more mysterious in hysteria than in any other complaint —scrofula, for example. The difference consists in hysteria being more complex and obscure, that is to say, more difficult of observation, than the other; and this is, doubtless, an important difference. But, when observation and reason have done their utmost, all we can ever hope to know of hysteria, or of any other disease, are its causes, its seat, and its phenomena. If we imagine that we are capable of attaining to knowledge more recondite than this, we deceive ourselves, and overlook the first principles of medical inquiry.

7th. The mind exercises a remarkable power over the phenomena of hysteria; in rare instances causing paroxysms of the spasmodic form of the disease by a mere act of volition, and, in other cases, sufficing to effect, or powerfully to aid in effecting, a cure;—facts which seem to prove that hysteria is as purely and unequivocally an affection of the nervous substance, as perhaps any disease which could be named.

FRACTURES OF THE PATELLÆ.

Case 1.—Eliza Fletcher, aged 26, was admitted, July 7th, under the care of Mr. Liston. She states that while running down stairs she slipped, and in making an attempt to recover herself, felt something give way in both knees, and fell backwards on the stairs. She was unable to rise after the accident. The pain at first was slight, being described rather as a numbness than a pain. A medical man was sent for, who found both patellæ fractured, and sent her to the hospital.

The fracture is transverse on both sides, and also about the centre of the patella.

The pain is now very considerable, but there is scarcely any swelling. The fragments on the left side were separated to about the extent of an inch, and on the right side a little more, but they could be brought pretty accurately into contact by raising the heel. The limbs were bandaged from the toes upwards to the middle of the thigh, and a splint was applied behind, reaching from the middle of the leg to the middle of the thigh. The heels were kept raised and the shoulders elevated so as to bend the trunk on the thighs, by means of the fracture-bed. In this way the fractured extremities were kept pretty accurately in contact, and the motion of the extremities was prevented. The same position was retained until the 14th of August, when the splints were removed from the limbs, and she was allowed to assume the horizontal position,—union on both sides appearing to be pretty perfect.

Case 2.—Harriet Taylor, aged 50, was admitted May 17, under the care of Mr. Liston, with fracture of the patella of the left leg. In this case the fracture had occurred about ten days before her admission, and the limb had been put up by a practitioner in the neighborhood. It was occasioned by direct violence, the woman having fallen and struck the knee against the curb-stone. The fracture was transverse, and about the lower third of the patella. The swelling was very considerable, and the fragments were separated about two inches. The limb was put up in the same manner as in the preceding case, but the fragments could not be brought closer than an inch apart, in consequence of the swelling.

19. The same position has been retained since the last report. The swelling subsided in a few days, and has now completely disappeared, but the fragments could not at any time be approximated within the inch, and ligamentous union has now taken place with that interval.

Mr. Liston, in lecturing on fractures of the lower extremity, illustrated by cases in the hospital, remarked that the patella was either broken by the action of the muscles, or by direct violence; other bones might also be broken by the action of the muscles. He knew a case in which the humerus was fractured by the throwing of a cricket ball; and cases also were on record in which that bone had been broken by a strong man striking out and missing the object at which he aimed. The femur had also been broken by a similar occurrence. The cases above related offered examples of the accident occurring from each of the two causes. The state of the matter was however very different. Generally, in fractures from the action of the muscles, the portions of the fractured bone were separated to a considerable distance, and the investing and surrounding fibrous tissues were extensively lacerated. It was seldom that these tissues gave way without the bone being also fractured; he had never known a case in which the ligamentum patellæ had been torn by the action of the muscles, but he had once seen an instance in which the combined tendon above the patellæ was torn across in both limbs. In fractures from action of the muscles there was rarely much extravasation, nor did much excited action follow.

In the other case there was always bruising of the soft parts, and the fracture was frequently starred, longitudinally as well as transversely. There was less laceration or separation of fragments, the excited action, however, was generally considerable. The patella when fractured might form an osseous union; every part was endowed with sufficient power of reparation, by means of a substance similar to itself, if under favorable circumstances. These circumstances were exceedingly unfavorable in fractures from muscular action; no temporary callus could ever be formed round this bone to any great extent. It was thinly covered outwardly by a yielding tissue, whilst its internal surface formed part of an articulation. No apprehension need be entertained of callus exuding into

joints, nor any precautions taken to prevent it, as had been recommended by some authorities; there was nothing, in fact, for provisional callus to be deposited in. Accurate, close, and long-continued apposition, was wanting to secure osseous union, if that were desirable; but in fractures attended with laceration of the fibrous covering of the bone, the surfaces could with difficulty be kept so opposed. In fracture, again, with bruise, osseous union could and did occur—in the longitudinal one certainly, yet slowly, showing that there was no indisposition to osseous deposit in the vessels. It was not, however, desirable, under any circumstances, to bring about osseous union of transverse fractures—the ligamentous being far more quickly completed, stronger, and less apt to be again displaced, the power of the muscle by the lengthened attachment being of course diminished. If the interposed ligament were long, the motions of the limbs were imperfectly performed; but if short, as in Fletcher's case, the motions were not interfered with. The treatment adopted in both cases was similar; the approximation of the displaced portions being effected by position alone, a bandage was applied loosely to the limbs, with a view only of retaining a splint, which was placed at the back of the limb as a precautionary measure. The extensors of the legs were still further relaxed by the limbs being kept on an inclined plane. Mr. Liston reprobated the employment of any species of complicated machinery to bring or retain the upper fragment in contact with the lower. In surgery, as in medicine, the simpler the treatment the better.

Mr. Liston exhibited preparations showing union of the patella after longitudinal fracture, and one specimen of transverse fracture united by bone: also one imperfectly united, obtained from a patient who had contused the knee-joint, and broken the bone, by falling from the mast of a ship; he lived eight weeks.—*Lancet.*

LECTURES ON MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN,

By Edward Rigby, M.D., F.L.S., Assistant Physician-Accoucheur to the General Lying-in Hospital.

The following extract from Dr. Rigby's Lecture on *puerperal mania* will be read with interest. This disease occurs frequently in this country, and at every period of gestation and nursing; assuming every form, from raving madness to melancholy. It appears in some instances to arise from an irritability of the uterus, proceeding from conception: from the excitement of coition itself; and often from the exhaustion which follows labor and suckling. As yet it has not occupied the attention of medical men to the extent that its importance seems to demand; and it is evidently increasing, *pari passu*, with civilization.

Puerperal mania is a disease which may not only attack a female during any stage of pregnancy or labor, but may make its appearance at some considerable interval afterwards, whilst suckling her child. The experienced Dr. Gooch, whose admirable observations on puerperal mania have not only placed this formidable disease in a much clearer point of view than it was before, but also furnished us with sound data to direct our practice by, has pointed out two periods at which the mind is peculiarly liable to become disordered, "the one soon after delivery, when the body is sustaining the effects of labor, and the other several months afterwards, when the body is sustaining the effects of nursing."

Disorder of the mind in females at this period, like the epileptic puerperal convulsions, may occur under very different forms and circumstances, requiring treatment as different as the causes are opposite. It may occur in a maniacal form, with symptoms of strong cerebral congestion, in fact, with little more or less than inflammation of the

brain or its membranes, or it may appear as melancholia, with a totally opposite condition of the system, viz. anæmia, where the patient has been exhausted by labor, hæmorrhage, suckling, &c.

You will perhaps recollect the description which I gave you, when speaking of menorrhagia at the beginning of this course, of those symptoms of anæmia which are present during the intervals of the attacks. Besides the intense headach, the weariness and inability of exertion, the restless nights, the depressed spirits, &c. &c., I mentioned that the mental powers soon begin to suffer in this state of general exhaustion. She experiences strange associations of ideas, which she cannot account for; their repetition alarms her; she feels convinced that her mind is wrong, and that if it goes on so, she shall become deranged. Now this is precisely the same state with the melancholic form of the disease I am now describing; it corresponds to the epilepsia ex anæmia of puerperal women: the delirium tremens of drunkards is a modification of the same state; it is a state (as Dr. Gooch has most happily expressed himself) of excitement without power. "I have repeatedly seen," says this experienced observer, "the commencement of mental derangement in women who had recovered from their confinement, and had been suckling several months. Nearly all these were cases, not of mania, but of melancholia. They occurred in women who had been debilitated by nursing. The disease at this period has been attributed to weaning; but, in all the cases I have seen, the disease has begun before weaning, and this measure has been resorted to because the patient had neither milk nor strength to fit her for a nurse. There was a peculiarity about the disease at the commencement, which I have seldom or never noticed at the commencement of mania. There was an incipient stage in it, in which the mind was wrong, yet right enough to recognise that it was wrong." This intermediate state of things between actual health and the outbreaking of the disease is not difficult to detect, if the patient be carefully watched. There is a restless fidgetting way about her which is not usual; she worries herself about trifles, either for no reason at all, or to a much greater degree than the nature of the thing would warrant; there is an incessant talkativeness and pertinacious wrong headedness of opinion, against which argument or reasoning is of no avail, but rather aggravates; her attendants and nearest friends are almost sure to fall under some groundless suspicion—they are robbing her, and she must be ruined, &c. &c. With all this there is constant sleeplessness, or at least very disturbed rest; the pulse is seldom very quick, but always weak; she takes little food; her hallucinations increase; and not unfrequently the first decided manifestation of the disorder is her becoming very turbulent, or even attempting to jump out of bed.

There is a considerable difference in these two forms of the disease, which greatly increases the importance of your making an accurate distinction between them. The maniacal form, which is accompanied with symptoms of meningeal and cerebral inflammation, generally terminates fatally, whereas, in the other, or melancholic species, where such an opposite state exists, and which is much more common, the patients, if treated properly, generally recover. Dr. Gooch has quoted a very remarkable passage from the MS. Lectures of Dr. W. Hunter, which is well worth being recollected:—"Mania (says Dr. Hunter) is not an uncommon appearance in the course of the month, but of that species from which they generally recover; when out of their senses with fever like paraphrenitis they will in all probability die, but when without fever it is not fatal." "From this (says Dr. Gooch) I extract the following meaning—that there are two forms of puerperal mania; *the one* attended by fever, or at least the most important part of it, a rapid pulse; the other *accompanied* by a very moderate disturbance of the circulation; that the latter cases are *by far* the most numerous—that the former generally die. There are some other circum-

stances to be taken into the account of the prognosis, the form of the derangement, and the period at which it occurs. Mania soon after delivery is more dangerous to life than melancholia beginning several months afterwards. Nights passed in sleep, a pulse slower and firmer, even although the mind continue disordered, promise safety to life. On the contrary, incessant sleeplessness, a quick weak fluttering pulse, and all the symptoms of increasing exhaustion, portend a fatal termination, even though the condition of mind may be apparently improved. In the cases which I have seen terminate fatally, the patient has died with symptoms of exhaustion, not with those of oppressed brain, excepting only one case. But, supposing the patient to live, how long will the disease last, and what danger is there of its becoming permanent? Experience shows that mania is a less durable disease than melancholia: it is more dangerous to life, but less dangerous to reason." "Of the many patients (says Dr. Gooch) about whom I have been consulted, I know only two who are still, after many years, disordered in mind, and of these one had already been so before her marriage. Before leaving this part of the subject, there is still another question, which requires to be thought of, and that is, whether a patient who has been disordered in mind after one lying-in, is likely to be so after another? I believe the chances are much against it: there is a sufficient possibility of such an event to call for the utmost degree of care, not only in the next, but in subsequent confinements; but this care being taken, the proportion of cases in which the disease occurs twice is small."

The causes of puerperal mania are as different as its species; like puerperal epilepsy, like the convulsions of infants, or the chorea of children, it may be merely a symptom of irritation in some part of the system acting indirectly upon the brain. Thus, then, you will easily perceive that a disorder of the mind may arise from the irritation produced by the presence of the child in the uterus or passages, or a state of irritation thus produced remaining after its birth. Under such circumstances, the attack will mostly assume the maniacal phrenitic character; the face is flushed, the head is hot, the carotids throb, the eyes are wild, and the pulse hard and full. This form, as Dr. Gooch remarks, rarely comes on after labor, for when the cause (viz. the child) is removed, the disease mostly disappears of itself also. I have only observed it shortly before or during labor, and should imagine that it can only exist *after* labor where actual inflammation of the brain or its membranes has been established, a state, of course, of the utmost danger.

Where the state of cerebral excitement arises from a deranged condition of the alimentary canal, we do not generally see it accompanied with symptoms of an inflammatory character. The cause here seems rather to depress the powers of the system than excite them, and consequently we mostly have a state of disordered mind where the patient is inclined to be violent, but where the tongue, though foul, is moist, where there is little flushing of the face, and where the pulse betrays but little excitement of the vascular system; on the other hand, the breath is offensive, the tongue, as I before said, is foul, the bowels rather constipated, and the evacuations, when passed, very unhealthy.

The other causes of puerperal mania are those which do not act by indirect irritation, but by directly exhausting the powers of life; as, for instance, where the patient has been rendered almost ex-sanguineous by profuse uterine hæmorrhage, or where she has continued to suckle her child when her strength and health have not justified the attempt—where she has become pale and leucophlegmatic, and where the various effects of anæmia upon the mind have gradually made their appearance.

Puerperal mania was formerly supposed to be a common result of weaning. The idea was, that a secretion which had been established, and to which the system had adapted

itself, being suddenly stopped, congestion to the head had followed; or, in other words, that the usual form of disordered mind in puerperal women was a state of inflammatory mania, induced by the suppression of the milk. Now this is a form which I have never seen, and Dr. Gooch, with his large experience, gives the same result. "In all the cases which I have seen (says this eminent practitioner) months after delivery, the weaning has been the consequence of the disease, not the disease the consequence of the weaning. The patients had been reduced in health by nursing, their memories had become enfeebled, their spirits depressed, and their minds ultimately disordered; and they were directed to wean their children, because they have neither milk nor strength to enable them to nurse."

With regard to the line of treatment which you must adopt in the inflammatory form of puerperal mania, I need scarcely tell you that it will be precisely the same as in the common form of puerperal convulsions. The lancet must be used boldly and decidedly, and it is remarkable what a quantity of blood may be abstracted under these circumstances, not only without injury, but with evident advantage to the patient. The bowels must be opened by a smart cathartic, cold applied to the shaven scalp, sinapisms to the legs and feet, in short, nearly the same practice as would be adopted in cases of violent congestion to the head under other circumstances. Time is here of great consequence, gentlemen; you *must* act with promptness and decision; the labor is advancing, every five minutes makes a perceptible difference in her manner, and if there be any delay permitted, she will surely have a convulsion fit, or even a stroke of apoplexy.

Previous injuries of the head evidently render the patient peculiarly liable to some cerebral affection at this period. I have seen three cases of mania or convulsions, where the patient had received severe blows on the head some time previously. I mention it merely to show that the knowledge of such a circumstance having occurred should put you on your guard, and induce you to watch your patient more narrowly than perhaps you otherwise would have done. In cases of mania coming on during labor, where the patient is of a delicate habit of body, do not be *too* active with your lancet, not only because in most cases, after a certain quantity of blood has been lost, the symptoms will now yield to the action of other remedies, particularly purgatives, but also because if you carry the bleeding beyond its proper limits, you will run a risk of keeping up the disordered state of the mind, from a very opposite condition of the system.

The symptoms of a deranged state of the alimentary canal vary considerably in degree in different cases of puerperal mania; "in some," as Dr. Gooch observes, "they are scarcely perceptible, in others they exist in a most remarkable degree; in these latter cases they seem to be the link on which the disease hangs, for as soon as they are removed the patient is well." I shall merely quote one case from Dr. Gooch's work, and hope that by so doing you will be induced to peruse the rest. The observations which it contains on puerperal mania are by far the best, either in this or in any other language, which have yet appeared. "A lady, twenty-two years of age, clever, susceptible, and given to books, was confined with her first child; she was anxious to nurse, but, several days passing with little appearance of milk, doubts began to be entertained whether she would be able; she thought she would, her nurse and surgeon thought that she would not; this led to irritating discussions, her manner became sharp, quick, and unnatural, and at the end of a few days she was decidedly maniacal. I and another physician were sent for; we found her in a strait waistcoat, incessantly talking or reciting poetry; her skin was hot, her pulse full and much above 100, her tongue covered with a dark thick fur, her bowels were confined, and her stools excessively dark and offensive. She took a dose of calomel

and jalap, followed by small doses of sulphate of magnesia. These produced a few evacuations, but they were followed by no relief. She talked almost incessantly, scarcely ever slept, and was so violent that it was impossible to keep her in bed without the strait waistcoat. Thus three days passed from our first consultation. The physician who attended with me, thinking the case would be protracted, withdrew, and I was directed to take Dr. Sutherland down with me. As the purgative had operated very moderately, and the tongue and stools were as unnatural as at first, he proposed a more active purge. The next morning, therefore, she took a strong dose of senna and salts, made still more active by the addition of tincture of jalap. After this had been taken about three hours it procured a very large evacuation, nearly black and horribly offensive. This was, as usual, discharged into the bed without any notice on the part of the patient; it acted again an hour or two afterwards, but now the nurse, who was sitting by the bed-side, was surprised to see her turn round, and in a calm and natural manner, request to be taken up as her medicine was about to operate; her waistcoat was immediately loosened, and she was taken out of bed, when she voided a stool of prodigious size, as dark and offensive as the first, and then walked back to her bed calm and collected. We saw her not many hours afterwards; her waistcoat was off, she was lying on her sofa perfectly tranquil, answered questions correctly, manifested no vestige of her complaint, excepting some strangeness in the expression of her countenance, and a timidity and abstinence from conversation, which was not natural to her. She recovered rapidly and uninterruptedly."

I have quoted this interesting case, in order that you might have a clear view, not only of the symptoms, but also of the treatment of puerperal mania under the above circumstances, and from what I said on this subject, when speaking of puerperal convulsions, there is no need for dwelling any longer upon it.

The treatment of disordered mind from exhaustion, whether this arise from hæmorrhage, suckling, &c.; requires more consideration. The state of the bowels should of course be attended to, but purging must be by all means avoided. In this state of prostration there is a great disposition to diarrhœa, even from the mildest laxatives, and we should then depress the powers of life still further. "Cupping, low diet, and purging," as Dr. Gooch well observes, "would confirm her disease, and perhaps convert it into idiotism." In no disease has want of discrimination been more mischievous than here; because narcotics have been found to be serviceable where it arises from deranged stomach and bowels, they have been administered in the other form also, where it arises from anæmia, and with the most unfortunate result: the disorder of the mind has continued, and the patient has gradually sunk from exhaustion. It is here that narcotics prove of such inestimable value; combined with gentle diffusible stimuli, they rouse the flagging powers of life, and calm the state of excitement and general irritability, both of body and mind, which is present; by their means can we bring again to our harassed and exhausted patient, "Nature's sweet restorer"—sleep, converting nights of incessant raving into hours of refreshing rest. The combination of hyosciamus and camphor, which I mentioned to you in the treatment of puerperal convulsions from anæmia, is a most valuable remedy. Battley's liq. opii sedativus in mist. camphoræ, given every two hours until sleep follows, is also very useful. The Dover's powder here is not so desirable, especially in summer time, on account of its diaphoretic action. If she be still suckling, this must be instantly discontinued, and either a wet nurse procured or the child weaned; the diet must be bland and nutritious; the powers of the stomach must be kept up with small doses of quinine and sulphuric acid with some aromatic; she should be allowed plenty of milk, good veal broth, beef tea, meat, jellies, &c., at short intervals during the twenty-four hours, and, where necessary, three or four ounces of port wine. In extreme

cases I have found the emulsion of egg and brandy very serviceable, especially where the stomach has been weak and irritable. Before quitting this subject, let me again request you to read Dr. Gooch's observations upon it; you will find them not only very valuable but exceedingly interesting, from the agreeable manner with which he has illustrated them by cases.

ABRIGED SUMMARY OF A COURSE OF LECTURES ON THE PRACTICE OF MEDICINE;

(Being the Subject of a Concluding Lecture by professor Badham): with Notes on a Case of much interest to the Pathologist and the Physician.

Of those two inexorable days to a lecturer who would eschew common place, or has exhausted it (I mean the first and the last of his annual duties), being now arrived at the latter and casting about for something tolerably suitable to the occasion, I intend to venture on such reminiscences of the subjects, or some of them, which have fallen under discussion, as I may be able to call up without reference to notes; to go over with you, as it were on the map, the arid region through which we have travelled; remind you of the few, and not very conspicuous or elevated, land marks which have conducted us over the great desert of a six months' toil; to pause an instant at some of the wells at which we have drunk (though the water possibly be not of the purest), and bid you brief farewell by their sides.

My intention to appeal to memory alone on the present occasion, will however, make it impossible for me to touch upon many of the topics I might desire to recal to your recollection, or to recommend to your further diligence, far less to distribute them in the just order of a mutual dependence, or in the proportion of their several claims upon our attention. You must, in short, take this concluding discourse (and discursive it is likely to prove) merely as an attempt which, if it be of any utility, may be turned to a better account hereafter, by myself or others. An analysis of a concluded task should, at any rate, be a more useful exercise, and more profitable to the hearer, that the plan of a prospective one, which so many accidents may disturb.

FEVERS.

Fevers occupy a large, perhaps an undue, portion of every course, and comprise an immense variety of subjects for discussion; for a given fever may include almost every mode of diseased action of which organs are capable, and yet not itself depend on any one of them. The particular action, if there be one, or catanation of actions, which constitute fever, may arise spontaneously and be developed from within (isolated cases of fever, not unfrequently occurring), but the great and grave fevers—the epidemics—are the result of causes acting from without, (some tolerably known to us, others exceedingly obscure,) connected with season, climate, and locality, made more effective by circumstances in the condition, the position, or the conduct of the individual. The bivouac of the houseless, the dark and airless dwellings, inadequate or unwholesome food, and habits of uncleanliness and intemperance, are some of the least equivocal of the causes alluded to.

But however originating, fever is an action, or series of actions, which the body will not entertain to an indefinite period; and which, if no single organ be pressed upon unduly, by the force of the disease, will cease after a longer or shorter period. During this *luctus cum morbo*, however, life is continually perilled, and may be exacted, without the infliction of any local injury, or destructive process, or at least none that can be discerned by the anatomist (so that this disease can scarcely have its proximate cause in any single affection of an organ); nor can we, in such cases, give any satisfactory explanation of a

fatal event: but fever may also, and often does, come to a fatal event, by the infliction of express and various injury, and may and does, even at a very early period of its course, set up permanent mischief of various kinds and degree. The brain and the alimentary canal are the chief seats of these destructive processes; concerning which, however, it is now sufficiently ascertained (and in relation equally to both) that the symptoms which these wounded organs exhibit are far from being always prominent or pronounced; while even the most formidable of them do not imply, by any strict necessity, the previous existence of inflammation. It must be esteemed no fruitless result of pathological investigation carried on for the last twenty years, to know that not only there are no expressions of suffering, no pains or aches, by which we should be authorized to assume, during the progress of fever, the development of, for instance, any precise cerebral injury, but that even a disturbance of the intellect, delirium itself is not a sure indication of cerebral disease at all (I mean such disease as visibly affects the structures of the brain); far less may we conclude on any particular mode of lesion—that knowledge, negative or positive, which prevents us from attempting a false or futile medication, is always valuable; for as to the doctrine of a celebrated French pathologist, that high excitement, or abnormal exaltation, of the intellectual functions of the brain declares its substance to be inflamed, while the perversion of those functions, or delirium, is the outward expression of meningitis, or inflammation of some of its coverings, I apprehend that we must still wait for more substantial proofs than those formerly related to you, before such a distinction can be authorized; delirium is sometimes diminished, or removed, by wine and opium. Concerning the abdominal mischiefs set up in fever, our knowledge is more precise, though the symptoms are even here not by any means conclusive; but in a large number of fevers the mucous membrane is a well-ascertained seat of injury, affording bronchial rales in the chest, and dysenteric discharges from the bowels. But there is a condition very probably connected with fever, and on the domain of chemistry rather than of anatomy—namely, a dissolved or degenerated state, or altered crasis of the blood, producing hæmorrhage from the bowels and a remarkable fœtor of the exhalations, pulmonary and cutaneous, &c. Such a condition is, I apprehend, at any rate no longer to be rejected as intuitively absurd; though we should not be able to turn it to any practical account, except that of the necessity of much caution in our depletions; the fashion of the day being to be afraid only of stimulation.

The treatment of fever amidst all the researches of morbid anatomy, has been perpetually fluctuating; and the results of methods of cure the most opposed to each other have not been so conspicuously different as to be instructive. When unaggravated by local injuries, fever seems to require, or at any rate can obtain, little at our hands. Repose, fresh air, cold water, cautious nourishment—still more, cautious excitement—together with the judicious employment of opium and purgatives, almost exhaust our resources. There is but one remedy of general application to all orders of fevers (a sentence which would once have introduced the mention of antimony)—mercury; which not only, when judiciously given (the right preparation, at the right time, and in the right quantity), exercises its marvellous power (for it is a power hitherto without explanation) in suspending inflammatory action, but, if recent authorities may be trusted, which effects here what it effects in syphilis—namely, opposes that ulcerative action which, seated in the glands of the mucous membrane, constitutes in fever no unfrequent and no unreal danger, though not so general a one as once imagined, and disposes those latent sores to granulate and heal. As to the expression of the *vis medicatrix naturæ*, exerted particularly in fever, it can mean nothing more than that if we shall be able to support the body through a process necessarily long, and necessarily hazardous, the diseased actions will decay, and

at length cease of their own accord; fever being, as it were, wound up only for a certain duration of time.

EXANTHEMATA.

As to the exanthemata, though we know nothing intimately of their pathology, and are fain to ascribe them to a particular state of the blood (for if there be any ground at at all for entertaining a humoral pathology, the doctrine must surely be most tenable where a venom and an antidote can be severally inoculated) they certainly exhibit a regularity of course so exact as to make it very doubtful how far we do wisely in the attempt to interrupt it by any active measures, not imperatively called for by those inflammatory excesses which are themselves deviations from such regularity, and so constitute no anomaly to the principle of the least possible interference. The practical directions, then, are, in small-pox, during the eruptive fever, to forbear purges, to keep the patient throughout in cool and often-renewed air, and meeting particular symptoms with suitable remedies; to soothe gently, at the decline of the disease, with opiates. In scarlatina, to keep down morbid heat by affusion, or the sponge; to avoid blood-letting (if we safely can, and that is not always possible), because this is a disease which, as it progresses, is marked by great debility; to inspect the throat both carefully and frequently, and to treat the ulceration there with dilute solution of nitrate of silver, or the chlorides. In measles we recommend an even temperature, best accomplished by confinement to bed; we do not employ an artificial refrigeration here, for we are jealous of pectoral symptoms in all the stages of rubeola, and if they occur, we must treat them according to their character —which may be bronchial, pleuritic, or peripneumonic. Erysipelas, when not proceeding from the irritation of wounds, accidents, or operations, is either a disease belonging to humoral pathology—that is to say, it implies a particular condition of the blood, which, as we do not know, we cannot correct—or it is, according to some authorities, a reflection, in particular constitutions, of inflammatory or other morbid irritations of the mucous membrane within upon the skin without, or a sympathetic irritation transmitted from the one to the other; though the reciprocal play of these two surfaces, in disease in general, is, perhaps, overstated by Bichat and his followers. The treatment of erysipelas is susceptible of much variety; when a high inflammatory action is set up, it must be subdued, like simple inflammation, by adequate bleeding; when the violent distention of hot and acrimonious humor is separating the cutaneous layers, or insinuating itself through the cellular membrane, we must make a passage for it by incisions; but in the great mass of cases in civil practice, and in spontaneous erysipelas, we give alkalines and calomel, with Mr. Lawrence, or bark with the old school, according to circumstances; employing the lancet in either case, with a salutary discretion.

The independent *Inflammations* arranged by nosologists, occupy so many parts, tissues or organs, that any profitable recapitulation of what we have said about them is not possible. Not only the solid or splanchnic viscera, but all the orders of membranes—mucous, serous, and fibrous—inflame, suppurate, and ulcerate; but here again remark, that these their conditions are not to be ascertained by the mere expression of pain, which is almost valueless as a symptom, if unconnected with constitutional disturbance or unequivocal pyrexia. Thus the most intense headache, for instance, is not to be placed to the account of inflammation at all; as they know by experience, who merely deviate from their accustomed wine—from port to claret—or take too much of either, or eat of dishes that disagree with them. Headache is usually a neuralgia; how occasioned, it is impossible to say, but in general removable by expelling whatever irritates the stomach, or (as Dr. Warren writes) the duodenum and upper bowels. Cathartic medicines often (indeed generally) relieve headache before they operate. So far is headache, even the most

intense, from being of inflammatory origin, that we know the stimulation of one set of nerves by the smelling-bottle, or the strong compression of another by a bandage round the brow, or the excitement of a third by warm aromatics; and cordials taken into the stomach, very often (as does opium itself) relieves or removes it. In some headaches the scalp is hot, in some cold, to the patient's sensation; in some it is tender to the touch. Many headaches are, doubtless, fibrous rheumatisms, either of the integuments or the membranous extension of muscles; are, in short, seated in parts exterior to the cranium. But if it be true, as in common headache, that the most violent pain need not be the offspring of inflammation, it is not less so that the latter may exist unattested by the former. The labors of Olivier, Serres, Lallemand, and others in France, and of Abercrombie and Bright, in Britain, though they leave the subject of cerebral disease necessarily imperfect, have done sufficient to allow the inference that pain, a precious symptom in diseases of the abdomen, yet not infallible even there (Andral), may not excite much attention in very grave diseases of the brain, or, existing, be connected with merely functional disturbance. Who does not know how often hydrocephalus is simulated? A large concurrence of suspicious circumstances is therefore plainly demanded, before, in complaints of the head, or indeed in any other, we may presume on the existence of a condition of parts, concerning which, if we shall have concluded falsely, we may do irreparable harm. I have already quoted to you a case of professional error, which has doubtless made an impression on you, from its distressing results, far beyond the most solemn admonition; a case where cerebritis—the cerebritis of fever—was presumed, on the notoriously equivocal evidence of severe pain; where, though the blood first drawn exhibited no inflammatory crust, the practitioner was not instructed or intimidated by that fact, but fatally persevered still on the evidence of pain only, till the unhappy patient almost bled into tetanus, at length barely escaped with life, but deprived of all that makes life grateful, and, together with the destruction, or lowest possible depression, of other organs of sense, is consigned to irremediable blindness.

When the existence of any inflammatory disease is fully ascertained, mercury (as we stated in the treatment of fever), whether by inducing an altered state of the blood, probably changed by inflammation, or, as some suppose, by restraining the effusion of that coagulable lymph out of which false membranes are formed and dangerous adhesions constructed; or by promoting the absorption of those serous fluids, which, as in pleurisy, pericarditis, and inflammation of the peritoneum, may so accumulate as to destroy the function of the organs over or within which they are confined; mercury—of course, after those depletions of the sanguiferous system shall have been performed, which prudence will adjust to the severity of the case, on the one hand, and the constitution or condition of the patient, on the other—is without question, the most eminently successful of all our therapeutic agents.

Of the local inflammations, the treatment is, on the whole, much the same, varying only with the intensity of the case and the nature and office of the part; considerations which cannot but influence the degree of vigor with which remedies are to be applied, or paused upon, while the operations of nature are expected. If we bleed largely in acute rheumatism, it can be only to accelerate the cure; for rheumatism of itself cannot effect the life of the patient.

Among these inflammations, the *genus cynanche* is a very important one indeed. All sore throats are serious, whether inflammatory or ulcerative. Mere tonsillitis has often proved fatal, especially in warm countries, by the magnitude of the swelling and the amount of the obstruction, and the pressure upon the respiratory passages: it may even pass into diptherite, or angina polyposa, as it did in several cases, during the last spring, in various parts of the country. Local depletion—not often necessary now, as in Syden-

ham's time, should stop tonsillitis; but you cannot stop cynanche trachealis by mere local bleeding—at least it is so thought; and this is one of those diseases, too, which soon become aggravated by laborious breathing and imperfect oxygenation, or insufficient decarbonisation of the blood. Cheyne treated it successfully with tartarised antimony; Rush and others, with calomel: if I had but the two cards to play, and, in fact, we have no more, I should prefer calomel. Whatever is given, if not given early, is given in vain.

In that fatal disease, the ulcerative cynanche, much of the treatment, and that part of it most likely to prosper, must be addressed to the ulcer itself; for tonics and wine, when they become admissible, confer little aid.

The old gargles were more plausible than useful: they implied a strength to use them which the unhappy patient in this frightful disease often had not. Cayenne pepper was a decided acquisition; but the medication of the ulcerated surfaces by the chlorides or nitrate of silver, is now chiefly relied upon. If that formidable epidemic which infested Ancient Greece and Asia (the Syriac ulcer of Aretæus), employed the pens of Huxham and Fothergill, and is still exceedingly frequent and fatal in the West Indies, shall be seen again, as it doubtless will, in Britain, it will require new study, and become the subject of new experiments.

Pneumonia.—A large portion of time was devoted to the diseases, many and various, which occupy the different tissues within the cavity of the chest, including pulmonary and cardiac. In investigating either, we undoubtedly possess an invaluable auxiliary in the stethoscope, which announces, by the conveyance of certain well-ascertained sounds to practised ears, some morbid conditions uniformly associated with them,—not, it must be confessed, revealing all with equal security, but yet seldom failing to afford elements of considerable value in diagnostic. The pleurisies and peripneumonies, known since time began, and determined by various degrees of cough, dyspnœa and expectoration and the bronchial inflammations, with their variety of râles and sputa came under separate consideration. Pain belongs, perhaps, most to pleurisy; dyspnœa most to peripneumony; cough most to bronchitis. The stethoscope is of most value in the two first; indeed, of very little in the last. The danger is also different, being, perhaps, least in a fully developed pleurisy. A largely-developed pleurisy, however, is not common; but there are subordinate or slight inflammations of the pleura, of which some account the fugitive dolores lateris, the stitches in phthisical patients; there are also latent pleurisies, acting chiefly by irritation, as difficult of detection as of cure. In the treatment of these inflammatory diseases of the chest, there is also some variety: bleeding is scarcely inapplicable to any of them at first, but its utility, and even safety, are comprehended within very different limits of time and quantity,—after the first week becoming doubtful in some, and long before eight days have elapsed being already equivocal in other varieties of pulmonary affection. The anti-inflammatory powers of mercury are not so much spoken of in the treatment of pulmonary inflammation; but it can scarcely be doubted that this powerful agent would be employed with its usual advantage, if it did not happen to be postponed, in deference to the better-ascertained virtues of emetic tartar. This is one of the most active remedies, undoubtedly, of which we are in possession; for it is now certain, when a patient, laboring under even incipient hepatization of the lung, can endure this salt to the amount of two grains every three hours, without vomiting, and persist in it, that a portion of lung, already indurated, returns to its natural state, and the vesicular structure again becomes pervious. It appears, too, from sufficient testimony, that the early employment of tart. emetic enables us to dispense with very large and repeated blood-letting, and that cures wrought by it are not only more speedily effected, but less liable to that relapse which is particularly incidental to peripneumony; while, lastly, in numerical amount,

the cures thus effected greatly exceed the old proportion. Of abscess of the lungs, the consequence of peripneumony, I gave you very full evidence that it was not a hopeless termination of the disease, except the walls of the abscess ulcerate, as they are not apt to do, unless in phthisical, that is, in scrofulous constitutions.

Of diseases of the heart there are so many now known that a summary is impossible. Hypertrophies, and their seat, may be distinguished far more accurately by auscultation than by any constitutional signs. That active hypertrophies, *i. e.* with enlargement of the fleshy substance of the heart, if situated on the left side, are apt to induce apoplexy; if upon the right, hæmoptysis (an hæmoptysis, however, very different in its pathology from that of the mucous membrane which occurs in early life), are facts of very considerable value in the history of the respective diseases. Passive hypertrophies, or aneurismal enlargements, lead to dropsies, and both are equally attended with disposition to syncope, and with distressing dyspnœa. Effusions into the pericardium, if sudden, may occasion sudden death; if gradual, they are the consequence rather of inflammation than of the dropsical tendency; yet I have no doubt of the existence of hydrops pericardii without inflammation. Pericarditis, the consequence of rheumatism, is not incurable, if discerned soon enough,—complete mercurialisation, after copious bleeding, consitituting the only remedy.

Asthma is undoubtedly a spasmodic or convulsive affection of the respiratory muscles, brought on in paroxysms, by various irritations; not susceptible, properly speaking, of cure, but very much so of alleviation. Besides these positive diseases, the pulmonary structures seem to be very different in different people; for, besides dyspnœa from known causes, (effusion, adhesion, obstruction, abdominal enlargement, &c.), there seems to be, in some individuals, an original defect in the elasticity of their lungs—a want of power of quick accommodation to changes in the general circulation; in others, there seems to be a nervous susceptibility, which affects the respiration from slight causes. Cough is an expression either of bronchial irritation, or of irritation of the larynx and trachea. It is to the latter kinds of coughs only that local palliatives apply. There may be, also, stomach coughs, as they are called, or perhaps rather hepatic coughs—*i. e.* from irritated diaphragm. Of matters expectorated, in whatever disease of the lungs, less account is to be made, than of the symptoms under which the suspicious sputa are separated. They may come from mucous surfaces only, or from abscess or from the natural glands; they may be of all colors, and of all consistence; in any quantity, tinged or untinged with blood. The rusty brown sputa of peripneumony are not unfavorable, probably because the high inflammatory tension must have given way before they can appear. The thick gluey sputum, which cannot be poured from, but sticks to the side of the containing vessel, has been taken as a pretty sure sign of hepatized lungs, by a no less accurate observer than Andral. But the fact of buoyancy or precipitation in water, is comparatively of small account; and Dr. Young's optical test has not answered in my hands, though tried in many unequivocal cases. Inhalation, lately revived, (only with new agents), is scarcely *sub judice;* but it has been said that gaseous chlorine, abounding in a manufactory, greatly relieves chronic coughs.

Abdomen.—Proceeding to the cavity of the abdomen, the parts that may become the seats of acute disease are much more numerous: here is a great involucrum, which may influence partially or extensively; slowly, or with singular rapidity; producing either an obscure inflammatory dropsy, or an acute effusion of coagulable lymph, and sometimes a soldering together of the intestines by that adhesive inflammation of which serous membranes are alone capable. Peritonitis of this kind is commonly not difficult of detection; for pain on pressure is nearly conclusive, provided, together with such pain, the required constitutional symptoms announcing inflammation be present; utterly inconclusive with-

out; for very violent anomalous pains of the abdomen occur, as Sydeham long ago stated, in hysteria; and I have met with, and been misled by them.

In the cure of peritonitis, the British practitioner takes blood largely from the vein; the continental physician only covers the abdomen with leeches. Of inflammations within the canal of the bowels, there are great varieties; all do not occupy the same seats; the mucous coat is the commonest seat, but the disease called enteritis is an inflammation extending through the whole material of the cylinder, pinching its muscular fibres into spasms, tying it into unequal valves, drawing portions of it within one another (intus-susception, invagination), or settling upon spots which it sphacelates or perforates; though perforation is more commonly the result of an insidious and ulcerative, than of a pure inflammatory process. The state of the cylinder, as to activity in the transmission of its contents is various, under exactly similar conditions; and inflammation of the bowels may be the result of diarrhœa, as well as obstruction. The modern practice avoids those drastic purgatives which were once in use, in order to remove this latter condition; and it does so from a just apprehension of aggravating the mischief it would remove. We should never, in a case of acute bowel complaint, attended with sickness and constipation, omit to take in the consideration of possible hernia, or fail to examine accordingly. Mercury, as I have already mentioned, has considerable power over ulcerations of the glands or follicles of the small intestines; and these, like external ulcers, are also capable of a reparative process or granulation, most likely to be aided by promoting, under this action of mercury, the better condition of general health, by sarsaparilla, &c. Gastritis is a very rare disease, except from poisons; concerning which every young practitioner should learn by heart, or keep by him, a table of counter-poisons, and should also have, and know how to use it, a stomach-pump, by which so many lives have been already saved; (indeed it is obvious that every practitioner should be prepared with apparatus for all exigencies liable to terminate in sudden death.) As to gastro-enteritis it is a sort of Mormolukion, set up by Broussais, to frighten people from eating and drinking. Yet it is not here meant to deny that some forms of dyspepsia are best treated on a cooling plan, and even (when there is tenderness of the epigastrium) by leeches, or a sinapism; while it is certain that purges, and the bitter tonics, of rhubarb, cascarilla, gentian, and calumbo, will after all suit more cases than the former; and that a painful moderation in food is in all cases that necessary condition for success, which, therefore, we seldom attain.

Diseases of the liver were entered into at some length; and here, profiting by the observations of Andral and Farre, we were able to lay before you some remarks, less inexact than would have been possible in the days of Cullen. Acute diseases of the liver have been often mistaken for pleurisies, and not mistreated on that account. Chronic ones are infinitely various, and mercury is so far from being a specific for most of them that when disorganization of the hepatic tissue has begun (where tubercle, for instance, is developed), it can only aggravate. Even in northern countries, the chronic diseases of the liver often enlarge its bulk; but the contingency of jaundice, and the peculiar symptom of pain in the shoulder (recorded from Aretæus to Andral), are not to be rigorously exacted in evidence of hepatic disease. Taraxacum is an useful auxiliary, but there is no reason to suppose it to have specific virtues. Time does not permit me to resume the subject of disease, as affecting the other splanchnic viscera—the spleen, the kidneys, the pancreas.

The modern doctrines of Bichat respecting the membranes, (of which the importance has, in my opinion, been much overrated, at least in their application to medicines), have led to a division of rheumatism into fibrous and synovial; the first is supposed to effect

the tough connecting ligamentary substance of joints, and the tendons and aponeuroses of muscles; and the second to distend, by an inflammatory effusion, those capsules of the joint which more readily enlarge. The former is the more painful rheumatism, the more usual, the more acute, and demanding the old treatment of blood-letting, calomel and antimony, together with opium, and refrigeration of the part, when it is hot, swelled, and red. On the second, it is thought by some that the virtues of colchicum are more particularly manifested. It is further pretended, that whereas fibrous rheumatism is apt to migrate to the pericardium, so the synovial rheumatism makes its retreat upon the membranes of the brain,—a doctrine for which I by no means vouch, believing the fact to be that you must measure your practice only by the acuteness of the symptoms, careless of the seats of disease.

Dysentery is a disease of the mucous membrane almost exclusively, which either never, or very seldom, passes into enteritis. The discharges of blood give it some relation to the passive hæmorrhages. The muciparous glands are probably the first recipients of the germs of this disease, and undoubtedly furnish its morbid secretions. It is one of those which has a course to run; and if the strength be maintained, and no ulcerative process be set up, a tendency to cease of its own accord. Opium is here the indispensable—the heroic remedy. Calomel appears to have some virtues, but is apt to aggravate that most painful symptom of the disease, tenesmus. Astringents are useless; and bleeding very seldom indeed to be thought of.

The general doctrine of hæmorrhage was discussed at considerable length, the two or three genera with proportionate brevity. Hæmoptysis is one of the oldest diseases on record, and long associated with a tendency to phthisis; as in the curious case of the Persian cavalry officer, related by Herodotus. The fact, however, is, that the patient who merely spits blood has a better chance of escaping phthisis than he who is obnoxious to the development of tubercles: and, according to my observation, these are two conditions not usually united. Hæmoptysis is still beneficially opposed, as of old, by sea voyages and a careful regimen, and conduct of life. When this hæmorrhage is alarming in quantity, and a blood-vessel breaks (which is not the common case), it may require the lancet. In acetate of lead, and essential oil of turpentine, we possess two new and powerful internal styptics, whose character is liable to no dispute.

On a view of all the particulars which occur in the class **Pyrexiæ**, it must be admitted that the practice of medicine has derived but small advantage from the doctrine of the membranes. Ingenious and scientific as it is, it is more to be valued as an anatomical exposition of matters of fact; for if we were to take it into our heads that inflammation of serous membranes required one treatment, and of mucous membranes another, we should widely err. The symptoms of croup, bronchitis, and dysentery, sometimes do not yield in violence to those of many of the inflammations of serous membranes. Calomel, if not bleeding, to a similar extent, is equally applicable to both. Colchicum, of which the utility in gout and rheumatism is so universally recognised, and the power in the relief of coughs has been so strongly advocated by the late Mr. Haden, may perhaps be found, after more trials, to be applicable to a much greater number of inflammatory complaints; as I see no reason to conclude that there is any peculiarity in the kind of inflammation seated upon joints and ligaments, and as the action of both orders of membranes under inflammation is, in fact, susceptible of great variety. A serous membrane may throw out, besides the coagulable lymph (out of which false membranes come to be organized, and adhesion formed), all sorts of exhalation—bloody, puriform, and dropsical; and a mucous membrane will furnish secretions of every color, quality, and quantity.

We are, I think, small gainers by any attempt at classes beyond the Phlegmasiæ. There are, doubtless, diseases, of which brain and nerve are essentially the seats—essential neuroses; but we know nothing of their pathology, either as they inflict pain, in the spasms, or dethrone the mind, in the vesaniæ. Nor do we even obtain much insight into the comatose, lethargic, convulsive, or paralytic affections, by any pathology hitherto invented.

Our knowledge of certain antecedent conditions of parts (ramollissement), and of the seats of hæmorrhage particularly, in apoplexy, must, after the labors of so many accurate writers, be deemed large; but our pathology of apoplexy is far from perfect—our practice far from secure. Why should this hæmorrhage into the brain never be an active one, nor happen when the constitution, and when, therefore, the blood-vessels, are in their fullest vigor? Do they give way in old age only because they have become diseased? But are they not always diseased because the brain round them is softened? But it is not always softened; and softness, when it does exist, cannot be explained without some previous disease. Apoplexy being a general loss of sense and motion, (except of the heart and lungs, which still go on for a time), whatever prevents the transmission of the nervous power from the brain or spine, its sources to the organs of sense and motion must induce apoplexy. This does not take in the accident of hæmorrhage at all. The cause of the interruption of the nervous communication may produce also hæmorrhage, but only as one of many consequences. Some apoplexies, it is said, leave no traces behind them—no morbid appearances. The conclusions from such cases, could they be well established, however few in number, must be of universal application: for if there are any pure nervous apoplexies, all apoplexies may be, at their *point de depart*, essentially nervous.

In asphyxia from narcotics, a state sufficiently germane to apoplexy, there are no visible results. On this interesting subject I quoted to you some notions which certainly deserve consideration. The suddenness of the occurrence (for the shot of a bullet is not quicker), suggests an instantaneous suspension, or exhaustion, of the nervous power, or energy of the brain, as Cullen called it. The hæmorrhage so usually reputed the formal cause of apoplexy, and the condition to which all our remedies are directed, may be subsequent to that suspension, and the real cause of apoplexy be the cause of that suspension; for when the nervous power ceases to invigorate and give activity to the arteries of the brain, their tonicity will be lost, so that they can neither oppose the blood rushing into them from behind, nor unload themselves to receive new supplies. They fill, they distend; and if nature does not enable the vessel thus distended (like a bloated leech) to react upon the distending fluid, and expedite its progress, is it extraordinary, it is demanded, that a vessel so circumstanced, and with more attenuated coats than elsewhere, should burst? or, not bursting, that it should exhale a portion of serosity, and yet the real starting point have been an intercepted supply, or discontinuance, of that influence which the organic nerves exert upon the blood-vessels? These opinions have been lately advocated in some remarks on the sphygmometer, and its application to the state of the blood-vessels, antecedent to apoplectic seizures, in which the author combats (I think conclusively) the views of Monsieur Herisson, the inventor of that ingenious instrument.

In apoplexy, therefore, not less from all that we really and practically know, than from all that we may be reasonably permitted to conjecture, some caution in blood-letting is evidently wisdom; the chances, however, being, from all experience, in favor of relief, by adopting that all-important expedient, if the pulse justify, we must always bleed; but we are certainly not to persevere in this practice, as we sometimes (rashly

enough) do in inflammation, where our way is so much more clear, but where we are, I have no doubt falsely, directed to continue bleeding till relief is obtained.

Palsy, sometimes the herald, sometimes the satellite, sometimes the vicegerent, of apoplexy, comes also in aid of these cautions. In palsy there is not that loss of power in the nerves, which it requires the very best treatment, and long time, to restore: that blood profusely taken, and slowly supplied, must retard and impede such recoveries, is intuitively clear; for though of the nature of nervous influence it is unlikely that we shall ever know any thing precise (while anatomists separate the fibres of nerves, and prove to us that those are for motion, these for sensation), we certainly do know many agents that excite, and many that depress, or exhaust it; and of the latter, if there be one who has not accustomed himself to consider the taking of blood (in any considerable quantity) in this light, let him ponder on the case which it has been at once my misfortune to witness, and my duty to relate.

But it is not only in the treatment of nervous diseases that we prescribe without science for our guide. How profound at this moment is our ignorance of the insidious origin and progress of degenerating tissues, or even of so simple and familiar a thing as inflammation itself? How ignorant are we of the pathology of that ever changeable fluid, which we can so easily remove; which probably receives the germs of infectious diseases; which certainly produces the exanthemata, and concurs, at least, in the origination of dropsies, and many other chronic affections? Can we expect that the getting by heart our catechism of symptoms (so imperfectly ascertained!) tied up ready to our hands in little parcels, and each ticketed with its conventional name, or that the collecting specimens of degenerated tissues, cleverly suspended in alcohol, together with the enlargement of an already lumbering polypharmacy of often doubtful and sometimes pernicious agents,—shall conduct us to that security of practice which the absurd legislation of some constituted authorities appears to intend? As to one of these branches, indeed, it will never be matter of regret to me if I have called upon you to reject theories, on the one hand; that, on the other, I have perpetually invited you to consider whether morbid anatomy (cultivated by some as a passionate study) be not rather a very subordinate pursuit; for surely that can be no other which only exhibits the highly contingent results of unknown processes.

Yet as to the question of the comparative efficiency of ancient and modern medicine, it may be answered proudly and affirmatively in favor of the latter. Anatomy exempts us from the error of supposing impossible duties or actions on the structures, or of widely mistaking the seats of disease, and greatly assists us in tracing the connexion of symptoms. Physiology has interrogated the parts which anatomy handles with no indifferent success. Accident has revealed, and skill compounded, extracted, or formed, new remedies of vast power, and thus multiplied our expedients. Bark, and the admirable preparations obtained from it, and from opium, the powers of digitalis, colchicum and even the lettuce (for henbane and hemlock were known to the ancients), are sufficient triumphs over the old Galenical medicines. The salts in daily use, and those powerful and indispensable auxiliaries of antimony and mercury, and the chlorides, and iodine, and the exact preparations from iron and zinc, and lead and silver,—these are but a few discoveries from the exhaustless science of chemistry. Look, too, at various mechanical expedients and contrivances, not to speak of what you call instruments, the stomach-pump, the water-bed, the stethoscope, the sphygmometer, and say if modern medicine be not indeed opulent in resources: all she wants is to know where and how skilfully to apply them. But to sustain us in the hope of adding to this knowledge, it is certain that the progress of education is making every generation of medical men superior in intelligence to the preceding;—to all which may be added, that medicine is taught more

safely, because less dogmatically and technically; that facts have entirely banished theories; that all discovery is speedily diffused by the press and the post to the remotest colonies. Van Dieman's Land, doubtless, already reads our Medical Gazettes, and in time may have one of its own. An university in Australia is not at all more visionary than those of Britain would have appeared to an accomplished Roman.

Case of Fatal Consequences from Blood-letting, alluded to in the foregoing pages.

A lady, aged 30, the mother of several healthy children, had suffered much during the last year from two abortions, in one of which her life had been placed in great danger by uterine hæmorrhage, and was now again quick with child. For many years a great sufferer from severe and hereditary headaches, she had treated them, under the plausible and popular name of *bilious*, with calomel and domestic purgatives, which sometimes relieved her, sometimes not. She had been so much reduced by the accidents above named, that for many preceding months her lips were blanched, her face without color, and the general debility of her frame painfully conspicuous to her family and friends. In this state of things, and having recently returned from the sea-side, where she had been sent for the recovery of her health, and not without great advantage, she was attacked by one of these constitutional and violent headaches; which seems indeed, in this instance, to have been more violent, and perhaps may have been much more violent, than usual.

Medical assistance being now sought, on a fatally mistaken supposition (founded apparently on the intensity of the pain) of cerebral or meningeal inflammation, connected with inceptive fever, and in a most undeniable disregard of the all-important facts above related in the recent history of the patient, a practice was unfortunately instituted, from which some sinister consequences might, one should say, have been anticipated; for in what class of society (even the rudest) could a woman six months gone with child, be made to lose so very large a quantity of her own and her infant's blood, without incurring almost inevitable abortion? What do the books on medical jurisprudence teach on this subject?

But waiving altogether the above considerations, I should, for my own part, call such depletions as were here resorted to, hardy, and should greatly hesitate to adopt them in an incipient pleurisy, unless it were of far more than ordinary violence. I go further: in how many cases in a year (out of the hospitals) would the loss of sixty ounces of blood be required, in any disease whatever? I confess I should not like such practice to be hazarded on my own person (if I had a vote in the matter) in apoplexy itself. Some estimable persons will, I am aware, think differently—these are mere matters of opinion; only, may it not be my fortune to fall into the hands of those (there be plenty!) who tap veins as if they held nothing better than water, or turn out leeches upon us by the score, as it were to grass! A *pharmacien* at Mons, on one market-day when I happened to be there, had dispensed one thousand leeches; at this rate these reptiles must have done more mischief in the Low Countries than Marlborough. I have known very serious mischief produced by two dozen leeches (the blood being allowed to ooze away indefinitely for a whole night afterwards). But to return to this melancholy case:—

One large bleeding from the arm (the blood from which exhibited no buffy coat) was succeeded by one hundred leeches at various times, for auxiliaries; this was the practice. The blood estimated to have been taken (during five days) was at first put at seventy ounces, but reduced to sixty (almost four pounds avoirdupois) by a later computation—an estimate which, however, I dare venture to consider as much below the mark, when I look at the agents employed. As to the leeches, blood thus drawn was not, it seems, *to be scrupulously* considered, or taken at its apparent value. Alas! how much fatal

mischief has this current absurdity of medical men not produced? and when will the unmeasured drain occasioned by leeches be looked upon as it ought, with more suspicion than venesection itself? That not the slightest relief was obtained may sufficiently prove the error of the application here; that the whole of the distressing consequences now to be stated, should have ensued, will occasion surprise. Had abortion been the only one—had it not been, in fact, the very slightest of those consequences—this admonitory narrative would have had no existence. Those consequences were, I admit, unusual; but I believe many of them to be producible just as certainly, and as often, as such a practice shall be adopted on such a subject. Spasms, all but tetanic, of internal as well as external muscles, and attended with excruciating pain, placed her existence, for full a fortnight, in hourly danger. I found the unfortunate sufferer, at the end of even four weeks, still clenched and screwed by these spasms (now, however, become very different, from the frightful violence of the still earlier days of her misery) to an extent most distressing to witness. I found her drenched in incessant sweat, and in such a state of deplorable debility, that she could not move her own limbs in bed, nor raise her head ever so little, if it rolled from the pillow; added to all which, that almost entire privation of sleep, which had allowed no respite to her pains for fourteen days, still continued to resist the various narcotics of which trial had been made.

The abortion of a six months' child had taken place on the 14th or 15th day from the attack, and on the 8th or 9th after the last of the bleedings; and it is worth while to remark, that the system was, at this time, so drained of blood, that, the expulsion accomplished, not enough blood followed, either then or subsequently, to stain a handkerchief. But far sadder consequences than all these are still to be related. Two or three days after the abortion her vision appeared to be failing, and this fatal suspicion was soon confirmed. The last object in the material world that she ever saw, was the bright yellow gown of her female attendant.

At that period, I should have mentioned, when the spasms, perfectly uncontrolled by common remedies, were plainly destroying her, and when it was obviously impossible that life could resist much longer, an introduction of the most powerful medicines was commenced, under the personal superintendence of a medical friend, who came from London to her assistance, and, as I believe, saved her life by musk, opium, belladonna, &c.

But the measure of her calamities was not yet full; the senses of smell and of taste were also found to be perishing; and perish they did,—the first entirely and permanently; the second has to a certain extent recovered. Touch, together with all prehensile power, followed, or departed, with the others, and of course (for touch is the sight of the blind) greatly aggravated her misery. She did not know when her hand was pressed by another's, or her pulse felt. Her arms and fingers were in perpetual cramp; and for one night she complained so much of difficulty of swallowing, that I was seriously apprehensive of tetanus; the rather as she had pains in the lower part of the spine, of great severity, and only capable of relief by the most violent pressure we could apply. As to the original pain of the head, it had left her; but it was succeeded by noises which never ceased, "like the din of a great manufactory, or the noise of a thousand anvils," together with what might seem an incompatible sensation of emptiness, "as if the brain ached for want of blood." From the beginning her intellect had never been disturbed for one moment; neither disturbed nor excited; it was calm, collected, and equal to her situation; most sensible to the attentions paid to her; desirous of sparing the fatigue of those around; affectionate to the objects of her affection; considerate for all. But the headache did not remain without some probable explanation. Long after the mischief was done by blood-letting, many quarts of dark-colored caustic bile, which scalded as it

passed, appear to refer the source of her original sufferings to disordered or suspended secretion of the liver.

Her life was spared. A slow convalescence, with many checks, at length began to take place; but though all the other functions have returned, the organs of sense have never rallied. She is utterly, and, at the end of six months, hopelessly blind; she cannot yet discern by touch any difference of surfaces, nor the difference of size between a large and a small coin; she cannot perceive any odors whatever of flowers or aromatics: she cannot smell a cigar, but can just smell ammonia.

It would be absurd to enlarge upon this case—an obvious divorce of the nervous from the sanguiferous system; or speculate as to how it was brought about. It was plainly the result of the bleeding only. To attribute it to any disease for which this practice was unwisely instituted (I select the mildest epithet), you must make a new disease on purpose. The melancholy instruction it affords will be thrown away upon many, and is perhaps less necessary now than it would have been a few years ago, when the absurdities and dangers of the doctrines of Broussais, then at their height, had been recommended to some of our *esprits forts* by their boldness, or to the credulous by their novelty.

DR. ELLIOTSON ON LIFE AND MIND.*

To the Editor of the Medical Gazette.

Sir—In perusing, several years ago, the fourth edition of Dr. Elliotson's translation of Blumenbach's Physiology, I amused myself with making a few notes in the margins of the pages, on some of the accomplished translator's opinions on Life and Mind—opinions which appeared to me to be unworthy of their author, and calculated to bewilder and mislead his readers, particularly the juvenile portion. As part the first of a new treatise on Physiology, by Dr. Elliotson, has just appeared, not so much a translation of Blumenbach as an original work, I was induced, for the purpose of comparison, again to peruse both my own notes and the chapter on life and mind, as it stands in this, the fifth edition; not altogether without the expectation, I confess, of finding the work purged of certain speculative views, which, to say the least of them, are but little fitted for an elementary treatise. In this expectation I was disappointed. The same opinions are stated afresh, with, if possible, greater confidence than before, and illustrated from a variety of sources—from the writings of Gall, from those of several eminent divines, not omitting appeals to the sacred scriptures.

I am far from intending to insinuate that there is any novelty in the opinions referred to. Life and mind have always supplied *quæstiones vexatæ*. They have afforded matter of controversy almost ever since men were accustomed to differ, which is equal to saying, ever since they began to speculate. Very probably such disputes might long ago have been set at rest, had philosophers submitted to confine their attention to the phenomena of animal being, discoverable by consciousness and by observation, and reasoned from these with the same caution they have exhibited in reasoning on most other subjects. But prejudices, chiefly connected with theology, have interfered; and wonderful has been the confusion of thought and language displayed in this above all other controversies, as the reader will readily admit who has the patience to peruse, among a long catalogue of treatises that might be named, the singular work of Barclay on Life and Organization; or the far more interesting, though prolix, chapters on the same subject, in the Memoir of Cullen, by Dr. Thompson.

In his preface the author has intimated that the correction of any errors, and the communication of any facts, either publicly or privately, will be esteemed by him a

* Human Physiology, by Dr. Elliotson. Part First. London, 1835.

valuable favor. It is in the same fair and candid spirit, I trust, in which this invitation is given, that I accept it; with the intention, nevertheless, of freely canvassing some of his views, which I cannot help regarding as altogether illogical, and well worthy of refutation for the student's sake, who is but too generally an easy convert to whatever wears the semblance of novelty, provided it is presented with a bold assurance, which dissipates at once all difficulties and doubts.

Much that Dr. Elliotson has written on life is judicious and philosophical. "We see matter," he observes, "in a certain state, possessed of a certain power which we term life; and the object of physiology is merely to observe its effects, just as it is the object of chemistry to observe the circumstances of the affinity of different bodies, and of physics to observe other phenomena of matter, without vainly speculating on the essence of matter, or the essence of affinity, to comprehend which our faculties are in their nature incompetent." After sentiments so sound and so well expressed as these, it excites surprise to be told that "the Almighty has endowed organic matter with the superaddition of life." And the surprise is not lessened when we further read, that "a power or property of matter [*e. g.* life or attraction] cannot be matter." The tenableness of the latter opinion I shall have occasion by and by to canvass; but the former, that life is a superaddition to matter, deserves a brief examination, especially as the same view, with respect to the superaddition of certain other qualities to matter, is expressed in another passage in the following terms:—

"Substances consist of particles endowed with certain properties, without which their existence cannot be conceived—viz. extension and impenetrability, with others which proceed, indeed, from their existence, but are capable of being subdued by opposing energies, namely, mobility, inertness, and with others apparently neither necessary to their existence, nor flowing from it, but merely superadded; for example, various attractions and repulsions, and various powers of affecting animated systems."

This account of matter is far from being unexceptionable, for several reasons, but I shall refer to one only. It is no doubt allowable to say, with reference to extension and impenetrability, that, constituted as our senses are, these qualities necessarily enter into our conception of matter, as something extended and capable of resisting compression; and with regard to certain other qualities of matter, that they are unnecessary to this abstract conception of it. But instead of this guarded view, the writer expresses himself in such a manner as to imply that there are certain qualities necessary to the existence of matter, and certain other qualities which neither flow from, nor are necessary to, that existence, but merely superadded; which seems to me to be altogether erroneous; and, moreover, as we shall see, is the source of confusion in some of his subsequent reasoning. It has been customary for metaphysicians to divide the qualities of matter into two classes, primary and secondary, in order to distinguish such as matter in every form exhibits, and which consequently are essential to *a definition* of it, from such as it may or may not exhibit, according to specific differences existing between different substances, and according as any given substance undergoes changes in its chemical or its mechanical states. But why should it be thought that the one class of qualities is essential to the existence of the particles of substances, and the other not? Why are extension and impenetrability qualities more essential to the existence of the particles of the substance named gold, for example, than yellowness, which, according to Dr. Elliotson, is a superadded quality? Matter, in every condition it is possible to conceive of it, we are never to forget is only known to us by certain qualities, and that by a quality of matter, whether it be a primary or a secondary quality, we mean *that* which is the cause of a particular sensation in us percipient beings, and mean nothing more. Extension and impenetrability, therefore, are nothing but matter *in certain relations to the mind*, precisely

as mobility, attraction, inertness, color, viscidity, fluidity, odor, sweetness, are nothing but matter in certain other relations to the mind. The feelings of extension, color, sweetness, &c., it is true, are not matter, but feelings excited by matter, accompanied *necessarily* by the belief, however, that matter when it excites such feelings is extended, colored, sweet. Hence it is clear that yellowness—that quality of the particles of the substance gold which excites in me a feeling of yellowness—is not something superadded to the gold. On the contrary, it is doubtless as essential to the existence of the gold, in the circumstances in which this quality is perceived by me, as extension and impenetrability are to the existence of matter in general. To assert that yellowness is not necessary to the existence of the gold, in the circumstances in which this quality is perceived by me, is to assert what is utterly unmeaning; for what, I ask, is the yellowness of the gold, but the gold itself in a certain relation to the percipient mind? just as the quality of impenetrability, likewise possessed by the gold, is nothing else than the gold in a certain different relation to the same percipient mind.*

To apply these observations to the phenomena of life:—"The Almighty," says the writer, "has endowed organic matter with the superaddition of life." Here, then, is a further addition to organic matter, besides the qualities previously superadded before it was organized: in other words, living organic matter possesses, first, qualities necessary to its existence as matter; secondly, qualities not necessary, but superadded; and, thirdly, vital qualities superadded to both! This statement, in my opinion, is perfectly erroneous. It is enough if we say that what are called the phenomena of life are qualities of matter in certain conditions, necessarily arising, so far as we know, from such conditions. Life, indeed, is not the name of a quality, properly speaking, but a generic term inclusive of a great number of qualities, which matter, as it exists in animals and vegetables, impresses on the percipient mind; these vital qualities, to vary the mode of expression, being *nothing else* than matter, as it exists in such bodies, perceived by the mind through the instrumentality of the senses. So far from having reason to regard the phenomena of life as qualities superadded to organic matter, we have no reason whatever to infer that matter could exist, in the *identical state* in which it exists as a plant or an animal, without exhibiting the identical vital phenomena it does exhibit, any more than we have to infer that oxygen could exist as oxygen, without possessing its present properties; or matter in general exist without possessing extension. Were I to be shown a mass of iron, or of granite, exhibiting vital phenomena, I should be ready to admit that life was, in this instance, superadded, knowing that iron and granite do not commonly exhibit such qualities; but when I see vital properties always belonging to matter, in forms, as regards their composition, perfectly unique, and which art cannot imitate, I infer that they are the properties of matter in such an inimitably compounded condition; and the conclusion is warranted by the fairest analogy, it being found that changes in the composition and mechanical condition of matter, are attended by corresponding changes of properties. A lump of gypsum, for example, possesses certain properties. We separate its constituents, and a variety of new properties are immediately exhibited. We reunite the substances; the new properties vanish, and the old properties return. Here it is surely reasonable to infer that the changes, in regard to properties, resulted from changes in the conditions of the matter. If it should be said that the conclusion is a precarious one, because there is little or no analogy between chemical and vital properties, I reply, that as little analogy is there between the conditions of a

* It is scarcely needful to remind the young student that "matter in the abstract," or "matter in general," is nothing in nature, but is merely a logical figment. Matter which is known to us, that is to say terrestrial *matter, is* gold, silver, sulphur, phosphorus, or one of the other uncompounded bodies; or a compound of two *or more of these.*

chemical salt and that of a seed or an ovum. If the two classes of properties are immensely different, no less wonderfully different are the two kinds of bodies as to the nature of their composition. I wave, however, all further remarks on Dr. Elliotson's opinions concerning life, as my own views on that subject are to be found, in a very brief form, in an early volume of the Medical Gazette, in refutation of an hypothesis by Dr. Prout, and in what remains I shall confine myself to the author's sentiments on mind.

"Mind," says Dr. Elliotson, "is the functional power of the living brain. As I cannot conceive life, any more than the power of attraction, unless possessed by matter, so I cannot conceive mind unless possessed by a brain, or by some nervous organ, whatever name we may choose to give it, endowed with life. I speak of terrestrial, or animal mind; with angelic and divine nature we have nothing to do; and of them we know, in the same respects, nothing." Again, "A physical inquirer has to do with only what he observes: he finds this power, but attempts not to explain it. He simply says the living brain has this power, medullary matter though it be. Seeing that the brain thinks, and feels, and wills, as *clearly* as that the liver has the power of producing bile, and does produce it, and a salt the power of producing a certain form, and does crystalize, he leaves others at liberty to fancy an hypothesis of its being a subtle, immaterial, immortal substance."

These passages sufficiently convey the writer's opinion, that it is the brain which feels, thinks, and wills; or, in other words, that what are called the qualities of the mind, are, properly speaking, qualities of the brain,—the brain and the mind, so far as these phenomena are concerned, being identical. The arguments by which he strives to support this view will be examined in a future letter. Were it, however, a *sine qua non*, dissenting as I do from Dr. E., that I must of necessity maintain by argument that the mind is immortal—the shift, in part, which he assumes an opponent must be forced upon—I should decline the discussion. Whether I hold the mind to be an immortal substance, or the contrary, has nothing to do with the proposition in question, which is limited to this, that *the brain thinks, as clearly as that the liver secretes bile*. It will appear, I trust, in what I shall say, that I am at liberty to steer clear of all hypotheses whatever relative to the mind's destiny, and that I am in no instance obliged to advance beyond what I actually know from simple consciousness, and consciousness aided by the senses.

When a person is led to reflect on the knowledge he possesses,—suppose of mind, of a chemical salt, of the medullary substance brain, of the bile, or of other objects,—and sets himself to discover how he obtains his knowledge, he finds that the inquiry is exceedingly simple. He speedily discovers that, leaving testimony out of the account, his knowledge of mind is derived from consciousness, and that from no other source does he obtain his knowledge of it. He is conscious that he exists—that he has feeling, reason, and volition—and that these faculties, which, by turning the mind to contemplate its own operations, he is able to subject to rigid examination, belong to *that*, whatever it is, which he is accustomed to denominate *I*. Further, by a law of his nature, he is conscious that his hand, his foot, the other parts of his body, and all objects which impress his senses, are distinct from this same entity. He never confounds this conscious being with any thing else whatever, and intuitively feels that it involves an absurdity to suppose that it could be added to, or subtracted from, or divided. In a crowd, in solitude, at all times, and however occupied, he never doubts of his own identity—that he is in every respect the same being to day that he was yesterday. The properties of mind he learns by consciousness, and by a law of his nature is compelled to ascribe them to *something* of which they are the properties. The properties of matter he obtains a knowledge of also by consciousness, through the aid of the senses, and intuitively refers them to *something else*, of which they are the properties. Concerning matter equally as concerning

mind, all his knowledge depends on consciousness, in the more extended sense of that word. And yet, as has been stated, by a law of his being, he never confounds perceptions of mental properties—volition, reason, memory, fear, hope, joy—with perceptions arising from impressions made on the senses—extension, hardness, fluidity, bitterness; in other words, he never confounds the properties of mind with those of matter, nor ceases to feel, whenever he reflects on the subject, that matter in all its forms is one thing, and mind, in all its infinitely diversified states, is another and entirely different thing.

These are first principles (if I, indeed, have succeeded in stating them correctly), which it is not optional to admit or to reject. If they are rejected, every proposition which it is possible to present for the assent of a rational being may be rejected. On the assumption, then, that they are indubitably true, I proceed to the examination of this notable proposition,—that it is as clear that the brain thinks, as that it is the liver which secretes bile. In regard to the liver, I become acquainted with it by the help of my senses; as also, by the same means, with the fact that the bile is formed in the liver, and issues from its duct. No sane person will differ from me on this point: he will at once assent that it is the liver which produces the bile. In like manner, were I to subject a liquefied salt to the action of heat, he would agree with me, on witnessing the formation of crystals, that the saline particles have the power of taking a certain definite crystaline form. In these instances I should need to assume nothing; what I asserted would be granted without a moment's hesitation. But Dr. E. asserts that it is not more clear that the liver produces the bile, than that it is the brain which feels, thinks, and wills. Will this, I ask, be as readily conceded as true? Manifestly not. *I*, for one, do not acknowledge that there is sufficient resemblance between mind and bile—between secretion and thinking—to warrant the comparison at all; or that the knowledge we possess of the one class of phenomena can be employed for the elucidation, in the way of analogy, of the other class; and that *I* am altogether *singular* in thus dissenting from this opinion of the writer, no one will assert. The bile is obviously matter, the cyrstal is matter, and both are confessedly products of matter; in short, matter in fresh forms. But thought, volition, anger, joy—the alleged products of the brain—are not *obviously* matter in fresh forms. Has Dr. Elliotson touched a volition? Has he tasted or smelt an emotion? When has he weighed or measured a thought, confined it in a jar, reflected or refracted it, or made it inhere in some body, so as to demonstrate its presence and its nature? Has he examined its qualities by a chemical test? If he has done none of these things, it is evident that mind does not possess the properties of matter, according to any known definition of that substance. And if it cannot be shown that mind possesses so much as one quality either of ponderable or imponderable matter, how can it be with fairness affirmed that mind is a product of the brain, as clearly as that bile is a product of the liver? It may be suggested, further, whether it at all diminishes the difficulty, to assert, with Dr. E., that mind is *a property* of the living brain, since a property of matter, be it living or brute matter, is nothing different, and *cannot be conceived as any thing different*, from matter.

That Dr. Elliotson has fallen into some confusion of thought, appears from this avowal—that as he cannot conceive life more than the power of attraction, unless possessed by matter, no more can he conceive mind, unless possessed by a brain; which is tantamount to saying that he sees no more difficulty in conceiving the brain to exhibit the phenomena of mind, than in conceiving matter to exhibit the phenomena of life and attraction. But here he falls into the error of comparing mere terms—life and attraction being nothing else than terms which express certain phenomena of matter—with mind, which it is a gratuitous assumption on his part to represent as a term expressive of phenomena of matter. The comparison, therefore, cannot be allowed.

Another proof of confusion of thought appears in the singular assertion, that he cannot *conceive* mind unless possessed by a brain. For my part, I could conceive mind, were I entirely ignorant of animal anatomy. A brain enters in no respect into my conception of mind. The intimate and wonderful connexion that subsists in animals between a brain and mind, is a fact in physical science which might have remained unknown as late in the progress of discovery as the circulation of the blood, or even to the present hour, without, perhaps, materially retarding the progress of mental science. That the idea of a brain, then, is *necessary*, in order to conceive of mind, is not to be admitted. The idea of a brain does not enter, I venture to assert, into Dr. E.'s conception of mind. His meaning must be, that he has no knowledge of the existence of any terrestrial mind, *his own conscious mind excepted*, except as exhibited in a living animal; in other words, that he knows nothing of *disembodied* mind. And no wonder, unless it were thought reasonable that minds should be visible, and might be subjected to examination, as the naturalist examines his specimens of moths and plants.

It is true we have irresistible evidence for the existence of other minds besides our own. Every person intuitively assents to the irresistible nature of the evidence for this fact. What I consciously experience in myself, however, with respect to the nature and power of my own mental faculties, is to me the *sole basis* of this evidence. I reason, and I perform a variety of operations, using means to an end. In the mechanism and actions of my own body, and in all nature around me, I behold proofs of agency and design, although the agent I discover not: nevertheless, when once I have detected, not contrivance alone, but wonderful skill, employed in effecting an infinite variety of designs, I intuitively infer the existence of an intelligent mind, the author or cause of all such effects. This is an intuitive, irresistible inference. I have no conscious perception of the supreme mind, nor of inferior minds distinct from my own. I infer the existence of the Deity from his works, in the same manner precisely as I infer the existence of a fellow mind; it being in the nature of things impossible, without miraculous aid, that I should form even the faintest conception of the existence and attributes of other minds, except by the evidence of such operations on matter as I am conscious that my own mind is, in some degree, capable of imitating or producing: which is merely a different mode of affirming that the existence of no mind can become known to me unless it is possessed of faculties in some sense resembling those of my own. Doubtless the evidence for the existence of a fellow-mind is more clearly and immediately perceived than that for the existence of the Deity, because the evidence for the former is of easier observation, and lies within an infinitely smaller compass. I behold a form and organs, like my own, moving and acting with intelligence, as I myself move and act; and to this form I intuitively ascribe the possession of a mind with like faculties and affections. In this *inferential* recognition of a fellow-mind, what need is there I should recollect, or even know, that there is a brain and nerves, by which it in some manner operates, more than that there is, in the same body, the pancreas and the pineal gland?

A question sometimes started by those who regard the brain and the mind as identical, is this: if it be not the brain's office to think, of what use is so large an organ in the animal economy? The brain, it may be said in reply, probably, indeed certainly, serves a *variety* of uses in the animal economy.* But the question is a mere trap, and there is no need whatever to be entangled in it; for they who assert that the brain is the mind, are bound to prove what they affirm, and not to throw the burden of proving what are the uses of the brain on their opponents. In reflecting on what this question imports, the student is especially bound to recollect and consider well what mind is—that it is an existence having no quality in common with any thing in the material world; that it is

* See the Gulstonian Lectures and the other Physiological Works of Dr. A. P. W. Philip.

by mind alone he investigates the structure and the functions of the brain—the nature of the mind itself, the nature of whatever besides he attends to; and that without mind he could know nothing—could not even so much as doubt whether or not he possesses a mind! Should he disregard this preliminary train of reflection, he will in all probability feel the question to be very perplexing, since he will be ready to regard the mind in the same light as the materialist—as being not that most wonderful thing that thinks, but something that is analogous to the parts and products of the body,—a mistake which will leave him deservedly in the power of his assailant. Unhappily, the ability to turn the mind inwards, to study its own qualities, is apt to be in a great measure lost, or, perhaps, never acquired, for want of cultivating, in a moderate degree, the habit of abstraction; and thus the power of accurate discriminative thought is greatly impaired, or altogether wanting. If the student possess and have diligently exercised the power of reflecting on his own mental operations, he will perceive that *primâ facie* he ought not to admit that the brain is the mind, without the clearest and most direct evidence; for this weighty reason—that he knew a great deal about the mind, had been intimately acquainted with its powers and properties, when as yet he knew little or nothing respecting the brain. While, therefore, he recognizes the *uses* of the brain and nerves, as a legitimate and interesting object of physiological inquiry, he clearly perceives that, merely for the purpose of extricating himself from the dilemma his opponent is attempting to force him into, it is one he is no ways particularly concerned to pursue.

Were it my present object to discuss what are the uses of the brain in the animal body, I should have no objection, with Dr. Elliotson, to allowing that the brain, besides other purposes which it subserves, is the organ of the mind; provided we agreed to attach to the term *organ*, in this relation, a modified meaning. This proviso would be necessary; for if we say that the brain is the organ of mind, and the lachrymal gland is the organ of tears, attaching the same meaning to the term organ in these different connexions, we fall into palpable error; and why?—because while it is matter of fact—a thing not admitting of dispute—that the use or function of the lachrymal gland is to separate from the blood the tears, we are not warranted in affirming of the brain that its indisputable use or function is to separate from the blood, mind—to produce, in any way, mind from matter, or even at all to *produce* or *originate* mind: consequently the brain is the organ of the mind in a manner, and *in a sense*, totally different from that in which the lachrymal gland is the organ of the tears.

Let us briefly inquire (ought I not rather to say conjecture?) in what respects the brain and nerves are to be regarded as instrumental in the operations of the mind. The nerves appear to be instrumental in sensation, in the widest sense of that term; visible objects the mind perceives by the instrumentality of the optic nerves, odors by the olfactory nerves, sounds and sapid bodies by the nerves appropriated to the senses of hearing and taste; and touch, heat, cold, muscular conditions, a great variety of sensations in the stomach and alimentary canal, and in the other systems of organs in sickness and in health, by means of nerves and of certain prolongations of the spinal marrow, extending within the cranium. Unquestionably the phenomena of sensation in the animal kingdom, with perhaps a few exceptions, is co-extensive with the endowment of nerves; and defect in the sentient power is found to accompany a morbid state of the nervous structure. It is likewise no less true that volition, in producing the infinite variety of muscular motion, acts by certain portions of the spinal marrow and certain nerves which exist for this special office. The brain, indeed, we are taught to believe, according to the most recent discoveries (if, indeed, the deductions of vivisectors are, in the present state of our knowledge, really entitled to the name of discoveries), is necessary "not *so much* that the mind may feel impressions, as that they may be remembered and availed

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